HUMBER RIVER AND TORONTO AREA WATER QUALITY

TECHNICAL REPORT #4

A REPORT
OF THE

TORONTO AREA WATERSHED
MANAGEMENT STRATEGY
STEERING COMMITTEE

SEPTEMBER, 1984

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STEERING COMMITTEE MEMBER AGENCIES

Ontario Ministry of the Environment

Metropolitan Toronto and Region Conservation Authority

Municipality of Metropolitan Toronto

Borough of East York

City of Etobicoke

City of North York

City of Scarborough

City of Toronto

City of York

Regional Municipality of Peel

Regional Municipality of York

Environment Canada

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Prepared by:

Acres Consulting Services Limited

Niagara Falls, Ontario

September, 1984

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SUMMARY

SUMMARY

The Toronto Area Watershed Management Strategy Study (TAWMS) was begun in 1981 by the Ministry of the Environment (MOE) with the cooperation of the Metropolitan Toronto and Region Conservation Authority (MTRCA) and the boroughs and cities of the Municipality of Metropolitan Toronto. The overall goal of TAWMS is to develop a comprehensive water quality management plan for the Toronto area watersheds. As part of the 1982 TAWMS program, an intensive water sampling and mathematical modeling study was done on the Humber River. The object of this study was to evaluate Humber River water quality and to identify areas in the Humber watershed that are significant sources of pollution.

Water samples were collected from the Humber River during dry weather, storms, and spring runoff and analyzed for a wide variety of conventional water quality parameters, bacteria, trace inorganic parameters, and pesticides and organic compounds. Sediment samples were collected in fall 1982 and spring 1983 and analyzed for trace inorganic parameters and pesticides and organic compounds. Clams were placed in Toronto rivers for three weeks in the fall of 1982 and then recovered and analyzed for a smaller number of pesticides and organic parameters.

A comprehensive hydrologic and water quality computer model, the Hydrological Simulation Program - FORTRAN (HSP-F) was implemented for the Humber River south of Steeles Avenue. Calibration was achieved for water and total dissolved solids. The model was used extensively during water quality data analysis.

For most of the conventional water quality parameters, concentrations were highest during runoff events and lowest during dry weather. Total ammonia, pH, and residue filtrate (total dissolved solids) concentrations, on the other hand, were generally higher during dry weather than during runoff events. Concentrations of total ammonia, total phosphorus, and fecal coliforms behaved differently on Black Creek and the Humber River, suggesting that sources of these parameters on Black Creek were different from those on the Humber.

Highest concentrations of most parameters were found at the mouths of Black and Cook creeks, both of which are industrialized catchments, and at the mouths of the Don River and Mimico Creek. High concentrations of several organic compounds were often found at the mouth of Taylor Creek.

The parameters that most consistently exceeded provincial water quality Objectives were fecal coliforms, cadmium, copper and zinc. The guideline for total phosphorus in streams was frequently exceeded during runoff events, and lead and PCB often exceeded Objectives during runoff events. Exceedances were most common and severe at the sampling sites at the mouths of Black Creek, Cook Creek, Don River, Humber River, Mimico Creek and Taylor Creek. Exceedances were generally less common at upstream sites on the Humber River. Significant exceptions to this, however, were cadmium and copper, which usually exceeded their Objectives even at the least urbanized site on the Humber River.

For total ammonia, fecal coliforms, lead, copper and zinc, runoff loadings were generally higher than base flow loadings during runoff events. The largest contributors of most of these parameters were the Lower Black Creek and Lower Humber River subbasins. During dry weather and spring runoff, however, the largest contributor of cadmium and copper was the rural Upper Humber subbasin, indicating a significant background level of these parameters.

Trace inorganic parameter concentrations were positively correlated with each other and with residue particulate (total suspended solids) at most sampling sites. There were often positive correlations between discharge and residue particulate and between discharge and trace inorganic parameters. Residue filtrate (total dissolved solids) concentrations, however, tended to be inversely related to discharge except at the most rural sampling site on the Humber River.

There was no statistically significant trend between 1972 and 1982 in annual loadings to Lake Ontario from the Humber River of water, residue filtrate, residue particulate, fecal coliforms, total ammonia, total phosphorus, lead or zinc.

The Black Creek and Cook Creek catchments seem to offer good opportunities to achieve significant reductions in contaminant loadings through either point-source control or instream treatment. Regulations could be implemented that require industrial sites to be drained by a sewer system that permits

- containment of accidental release of contaminants
- identification of sources of contaminants.

Settling basins to treat initial storm runoff might prove effective in Black and Cook creeks and merit further consideration.

Management options to reduce levels of copper and, to a lesser extent, cadmium, seem unlikely to result in significant reductions in Objective exceedances in the urbanized Humber because of the high background concentrations of these parameters.

The combined sewers discharging overflow into Black Creek should be separated and the sanitary sewage should be routed to a treatment facility.

For use in simulating management strategies, HSP-F should be calibrated independently for smaller catchments of interest, such as Black or Cook creeks, to improve the sensitivity of the calibrated model to simulated watershed characteristics.

1 - INTRODUCTION

1 - INTRODUCTION

The five-year Toronto Area Watershed Management Strategy Study (TAWMS) was initiated in 1981 by the Ministry of the Environment (MOE). Although wholly funded and managed by MOE, TAWMS receives extensive cooperation and support from the Metropolitan Toronto and Region Conservation Authority (MTRCA) and from the boroughs and cities of the Municipality of Metropolitan Toronto. This multiagency approach is vital to the success of the project and to the implementation of study recommendations.

The study's overall goal is to produce a comprehensive water quality management plan for the Toronto area watersheds, with particular emphasis on the Don and Humber rivers and Mimico Creek. To fulfill this goal, three specific objectives have been defined. They are

- to better define water quality conditions within the study area

- to carry out detailed analysis of selected subwatersheds and to conduct demonstrations of suitable remedial measures to reduce pollutant loadings to receiving waters

- to develop cost-effective measures for controlling pollutant loadings to the study area's receiving waters based on watershed needs and/or uses.

In 1981, TAWMS was directed toward a closer definition of existing water quality conditions within the study area. The work relied heavily on historical water quality data collected through the routine sampling programs of MOE and other agencies. Use was made of information from a limited sampling program undertaken by TAWMS in 1981 to supplement the historical data base. The results of this first year's problem definition study are reported in the Interim Report dated April

1983.* The activities proposed for the 1982 to 1986 TAWMS program are reproduced below.

(a) The water quality in the rivers was observed to be worse in urbanized areas, so the 1982 TAWMS activities will focus on those portions of the Don and Humber rivers and Mimico Creek basins within Metropolitan Toronto boundaries (i.e., south of Steeles Avenue).

(b) Particular attention will be directed to further study of pollutants which are of most concern for public health reasons (e.g., bacteria), of those which are most persistent in aquatic systems (e.g., trace organic compounds), and of those whose distribution and severity of contamination in the study area are least well known (e.g., trace organics and heavy metals).

(c) The 1982 TAWMS activities will be divided into "source" studies of outfalls and other sources of contamination and studies of the receiving stream waters. All TAWMS activities in the watersheds will be coordinated with ongoing waterfront monitoring programs.

(d) Research efforts will be directed primarily to the abatement of water quality problems. Urban stormwater runoff, combined sewer overflows and sewage treatment plant effluents appear to have particular significance in the impairment of receiving stream water quality, especially with respect to bacteria, nutrients and heavy metals.

(e) Water quality sampling programs will be designed to monitor and characterize sources such as storm flows, spring runoff from snowmelt, and individual effluents. In particular, a comprehensive effort will be undertaken to pair water quality sampling with hydrologic sampling under a variety of flow conditions to evaluate

*Ministry of the Environment, Toronto Area Watershed Management Strategy Study Interim Report on Toronto Area Water Quality, April 1983.

loadings of pollutants as well as their instantaneous concentrations at a particular location. This will aid in assessing the relative importance of each source in determining receiving water quality.

These proposed activities were translated into a work program designed to satisfy the second TAWMS objective. In 1982, two technical working groups--the Pollution Control Committee (PCC) and the Water Quality Committee (WQC)--were established to direct the work program. The role of the PCC is to investigate the pollutant sources associated with urban discharges from storm sewer outfalls and combined sewer overflows. The function of the WQC is to assess the effect of these urban contributions on receiving stream water quality and to study instream pollutant behavior.

Figure 1 indicates that both committees interact so as to ultimately develop cost-effective pollutant control measures. This in turn will lead to the development of a watershed management strategy.

Major emphasis of the 1982 program was directed toward the Humber River watershed with limited effort in the Don River and Mimico Creek watersheds. Resources were not available to permit detailed analysis for all three watersheds. Detailed work is planned, however, for the remaining watersheds as TAWMS progresses.

This report describes part of the program carried out by WQC consistent with the TAWMS activities proposed in 1981. The specific goals of this work were

(1) to determine water quality during summer low flow and storm flow and during spring runoff in the Humber River watershed within Metropolitan Toronto south of Steeles Avenue

(2) to monitor exceedances of Provincial Water Quality Objectives during sampling periods

(3) to identify subbasins that contribute disproportionate amounts of pollutants

(4) to implement a mathematical hydrologic model of the Lower Humber River watershed that can be used to develop water quality management plans

(5) to investigate the behavior of selected pollutants

(6) to estimate annual loadings of selected pollutants to Lake Ontario from the Humber River.

The methods used to achieve these goals are described in Section 2 of this report. The results of the field program and data analysis are summarized in Section 3. Section 4 is a discussion that relates TAWMS 82 findings to those of some similar studies elsewhere, and Section 5 lists conclusions of this study and recommendations based on these conclusions. The data on which this report rests are given in annexes following the text.

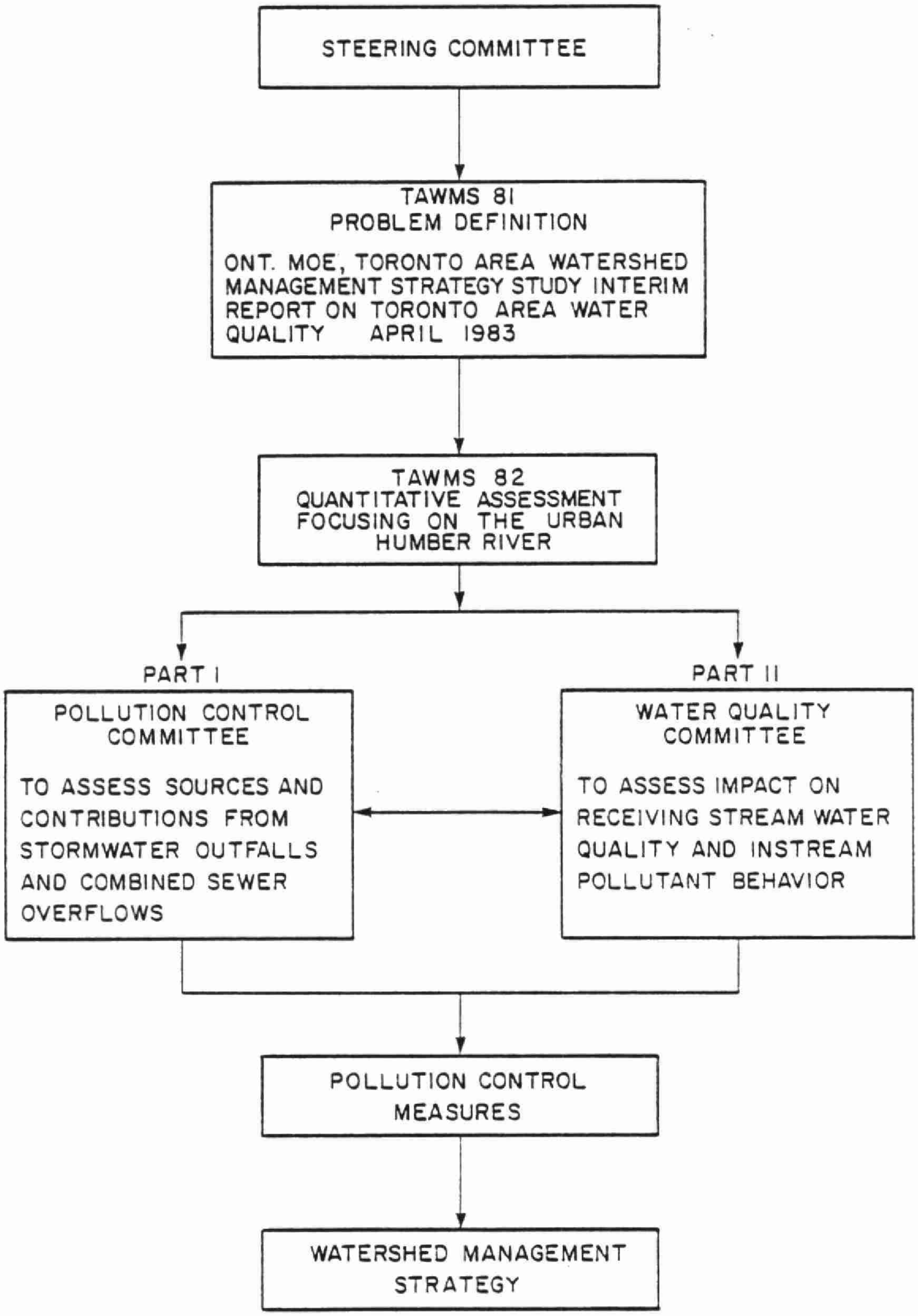

FIG. I

ONTARIO MINISTRY OF ENVIRONMENT
TORONTO AREA WATERSHED MANAGEMENT STUDY – TAWMS 82
TAWMS 82 STUDY ORGANIZATION

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2 - METHODS

2 - METHODS

Pollutant loadings to the urbanized portion of the Humber River come from tributary inflows, combined sewer overflows, storm water runoff through storm sewers and direct surface runoff, and groundwater discharge. The TAWMS 82 water sampling program was designed to assess net pollutant loadings to the urbanized Humber River from selected urban subbasins.

2.1 - Study Area

The emphasis of the TAWMS 82 program was placed on the Humber River watershed in Metropolitan Toronto south of Steeles Avenue. This is the most highly developed portion of the Humber, so it is the portion most susceptible to water quality impairment. Figure 2 shows the TAWMS 82 study area.

2.2 - Water Quality Monitoring Network

For the purpose of water quality monitoring, the Humber watershed was divided into nine subbasins (Figure 3) on the basis of

- tributary network
- land use (see Figure 3 and Table 1)
- locations of combined sewer overflows
- locations of known point sources.

Nine water sampling sites were established in the Humber watershed, one at the downstream end of each subbasin (Figures 2 and 3). Site 10 was chosen to give an indication of loadings to the urbanized Humber from the mainly rural areas north of Steeles Avenue. Sites 9, 7, 6 and 3 were chosen to monitor the effects of progressively increasing urbanization downstream from Site 10. Three sites were set up to assess loadings from important tributaries

TABLE 1

PERCENTAGE LAND USE[1] BY CATEGORY*

Drainage Area***	Land-Use Category** Low Density	High Density	Industrial	Open	Total Area*** (km^2)
10	0	0	0	100.0	537.4
12†	0	10.9	10.0	79.1	17.7
9	50.2	8.1	4.0	37.7	8.8
8	9.6	1.7	8.5	80.2	221.2
7	37.7	11.2	27.7	23.4	14.9
6	32.3	27.0	19.3	21.4	15.2
11	30.8	10.4	8.1	50.7	50.4
5	48.0	12.8	24.1	15.1	14.7††
3	64.4	6.2	0.2	29.2	12.0
Mouth					4.7
Total					897.0

---

1 Draft report by Gartner Lee Associates Ltd.:"Storm, Sanitary and Combined Sewer Mapping and Data Enumeration", July, 1983.

* Reported values are net for individual basins.

** Low Density - low and medium residential (low impervious)
High Density - high density residential, commercial and transportation (high impervious)
Industrial - all classes of industry
Open - rural, parks and utilities (high pervious).

***Drainage area and total area refer to the area between sampling points draining to the numbered sampling point.

† Drainage Area 12 added for spring 1983 sampling.

†† Includes an additional 9.5 km^2 when the combined sewer overflow is active.

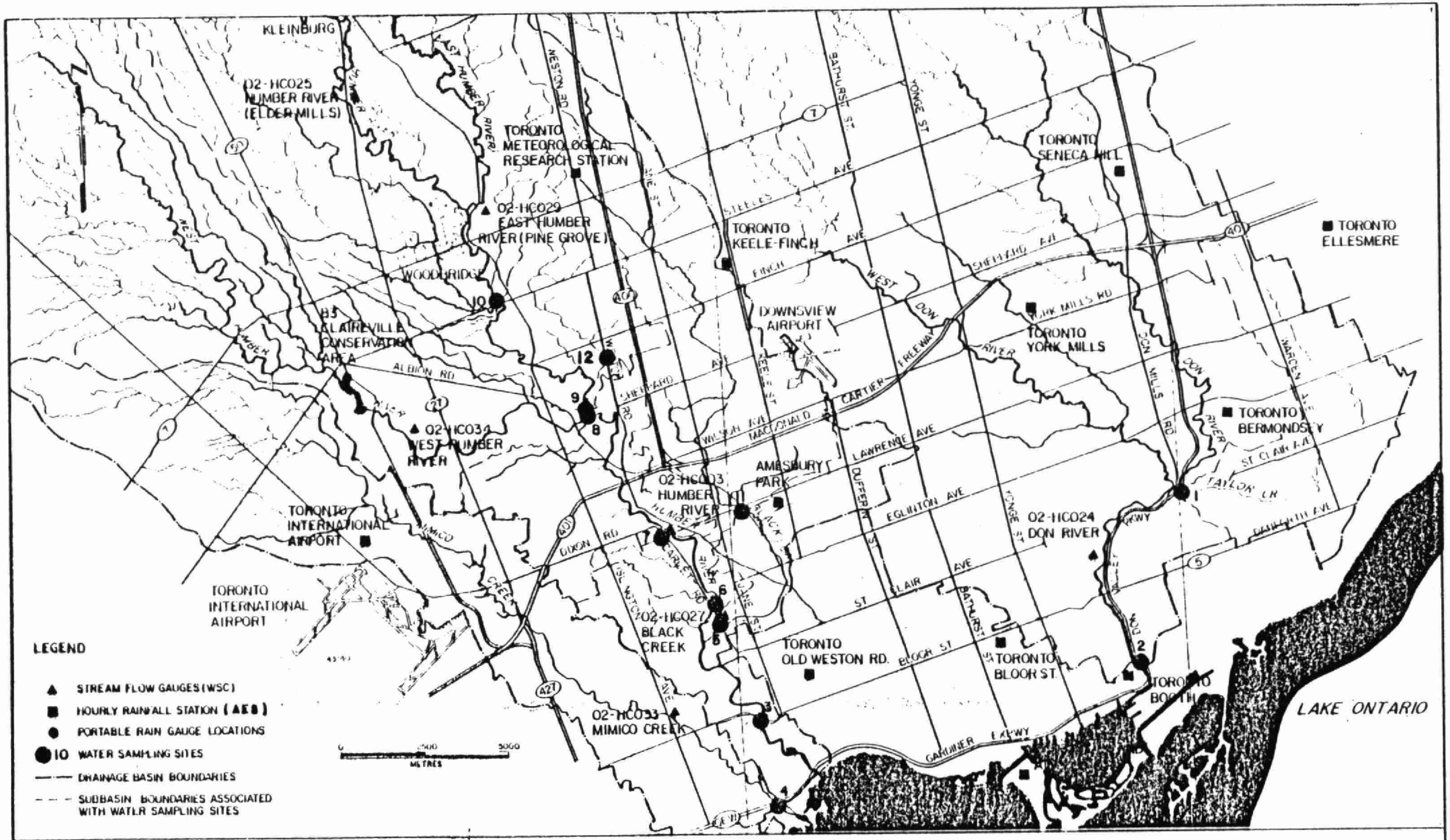

FIG 2

ONTARIO MINISTRY OF ENVIRONMENT

TORONTO AREA WATERSHED MANAGEMENT STUDY- TAWMS 82

TAWMS 82 STUDY AREA

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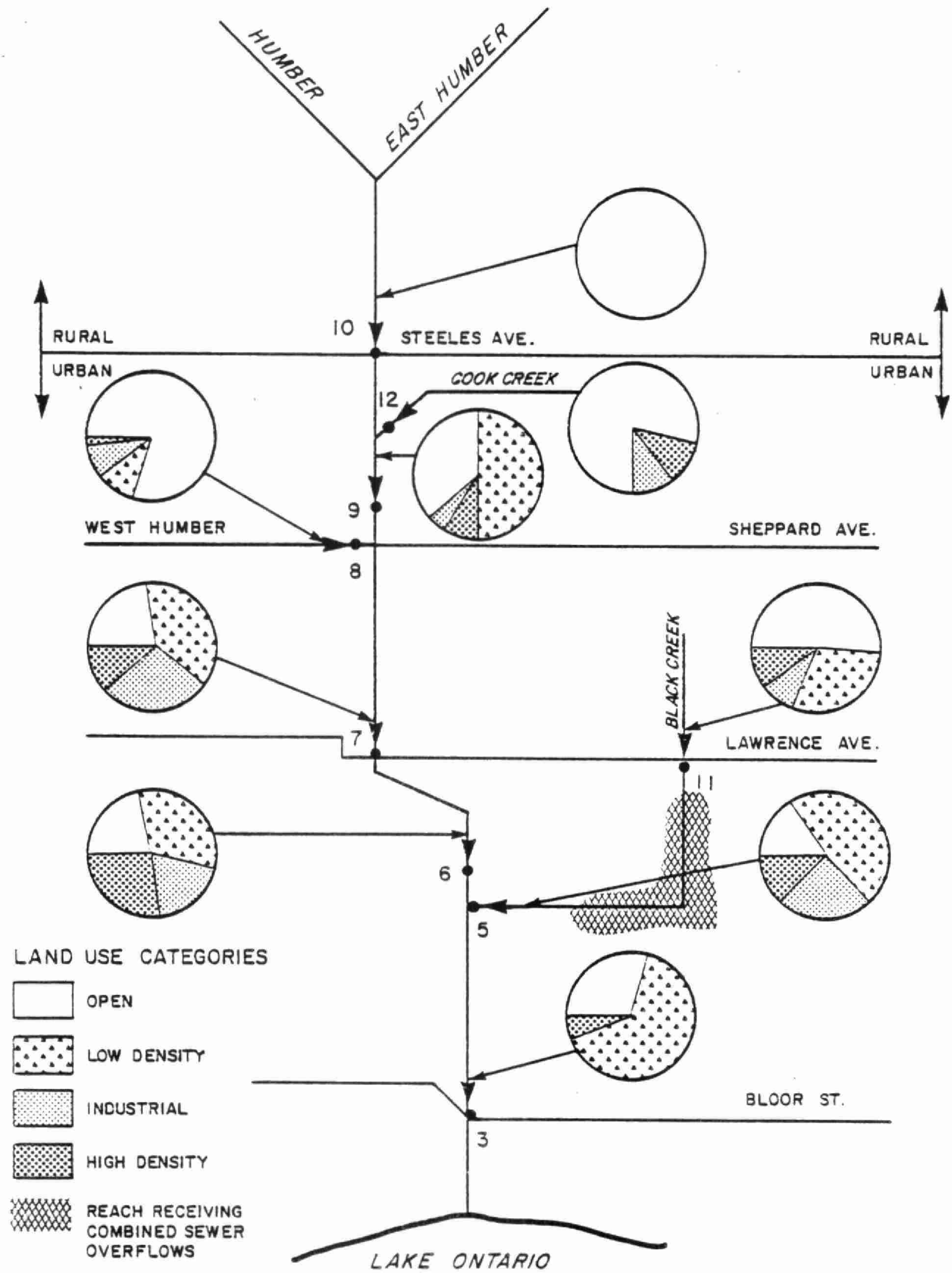

FIG. 3

ONTARIO MINISTRY OF ENVIRONMENT

TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82

SCHEMATIC OF HUMBER RIVER SUBBASINS

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- Site 12 on Cook Creek
- Site 8 on the West Humber River
- Site 5 on Black Creek.

A second site was set up on Black Creek upstream from Site 5 to distinguish the combined sewer overflow loading in Lower Black Creek from the other rural and urban loadings to Black Creek. Site 12 on Cook Creek was added for the Spring Runoff sampling program after MOE identified the Cook Creek watershed as a significant source of pollution.

In addition, two water sampling sites were established on the Don River, one at its mouth and one at the mouth of Taylor Creek, a tributary of the Don. One final sampling site was set up at the mouth of Mimico Creek.

Water samples were collected during the fall of 1982 at Sites 1 to 11 and during the spring of 1983 at Sites 3 to 12. Fall samples were collected during two dry periods to assess low flow water quality and during three storms to assess the effect of urban runoff from discrete storms on receiving water quality. Spring samples were collected to assess the effect of snowmelt and extended spring storms on receiving water quality. Low flow or "dry event" water samples were collected on October 5 and 26, 1982. Discrete storm flow, or "wet event" samples were collected on October 20, November 3 - 5, and November 21 - 22, 1982. Wet event samples were taken primarily on the rising limb and near the peak of the storm hydrograph (Figure 4a). Spring Runoff samples were taken weekly between March 10 and April 28, 1983, and more frequently between March 19 and March 30, 1983, during a series of spring storms (Figure 4b).

Sediment samples were collected once from each sample site in both fall and spring for chemical analysis. Figure 5 shows the sediment sampling sites.

Clams in cages were placed at 33 locations (Figure 5) in the fall to assess the rate at which selected organic compounds accumulated in organisms.

2.3 - Data Collection

Meteorologic Data

Precipitation, temperature, and radiation data were obtained from the Atmospheric Environment Service (AES) of Environment Canada. Figure 2 shows the locations of AES precipitation gauge sites whose data were used in this study. Precipitation data were also obtained from the Metropolitan Toronto Public Works department for several locations in Metropolitan Toronto.

Rainfall was also measured during fall 1982 using two portable tipping bucket rain gauges. One gauge was placed at Site 10 for Wet Event 1 then moved to Claireville Conservation Area for Wet Events 2 and 3. The other gauge was placed at Site 11 for Wet Event 1 then moved to Site 3 for the other two wet events. These gauges were moved to ensure a representative sampling network after the AES rain gauges were closed down for the winter.

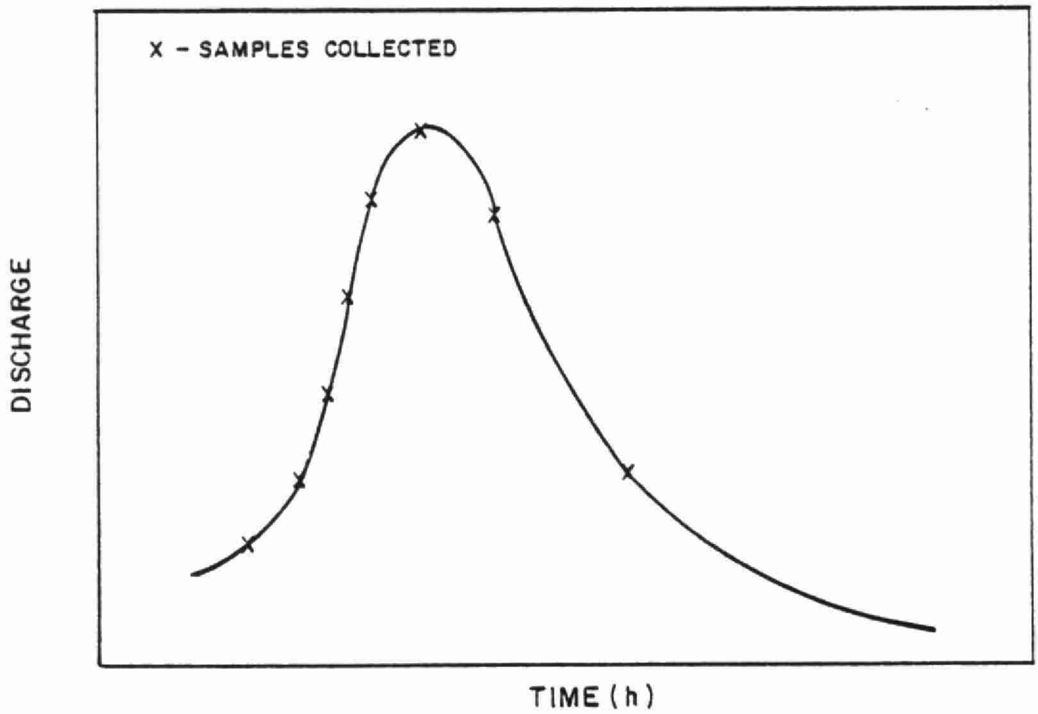
Hydrologic Data

Stage-discharge relationships (rating curves) for Sites 5 and 7 were provided by the Water Survey of Canada (WSC). Rating curves were established for the other water sampling sites by installing staff gauges and measuring discharge at several flow rates.

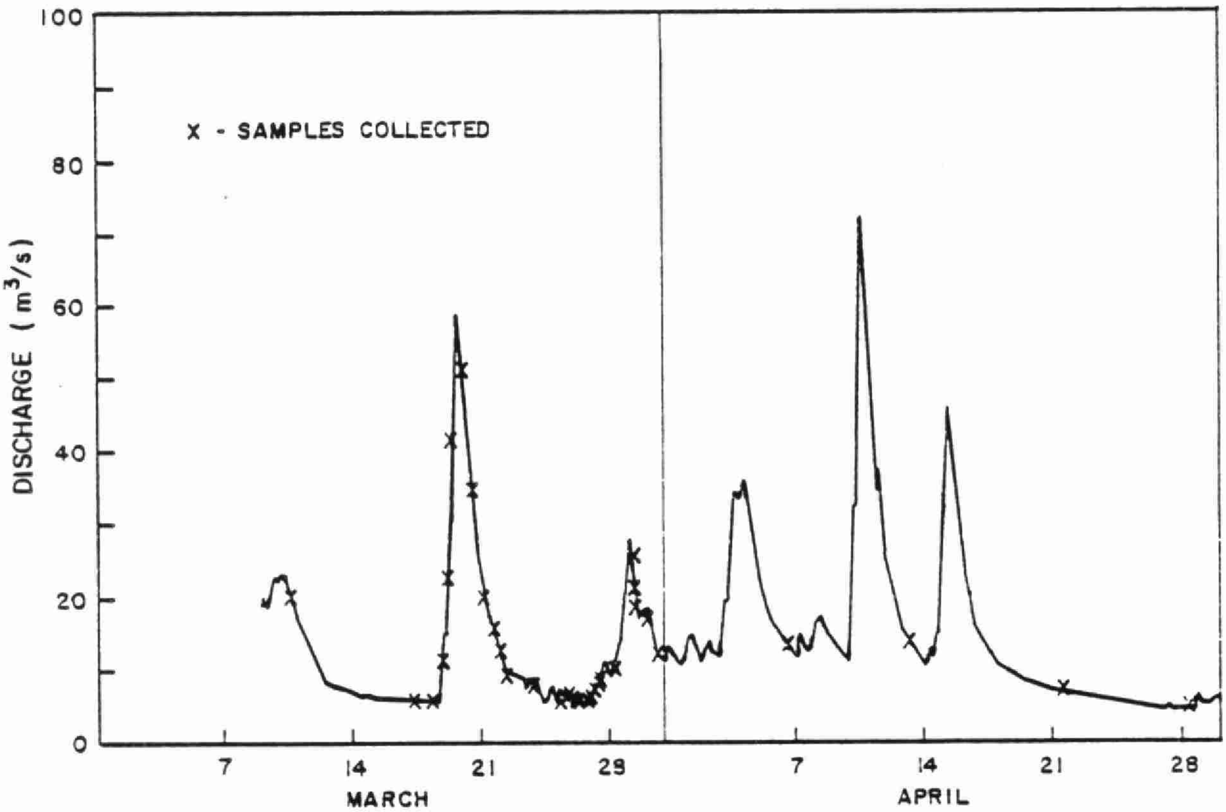
When water samples were collected at a site, the water level at the staff gauge was recorded for later conversion to discharge using the rating curve. Records of hourly discharges were provided by the WSC for their sites shown in Figure 2. Records of Claireville dam discharges were provided by the MTRCA.

Water Samples

Water samples were taken as vertical composite samples at or near the center of the stream at depths from just below the surface to 1 m.



a) TYPICAL WET EVENT



b) SPRING RUNOFF

FIG. 4

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TORONTO AREA WATERSHED MANAGEMENT STUDY-TAWMS 82

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RELATIONSHIP OF WATER SAMPLE COLLECTION TO HYDROGRAPH

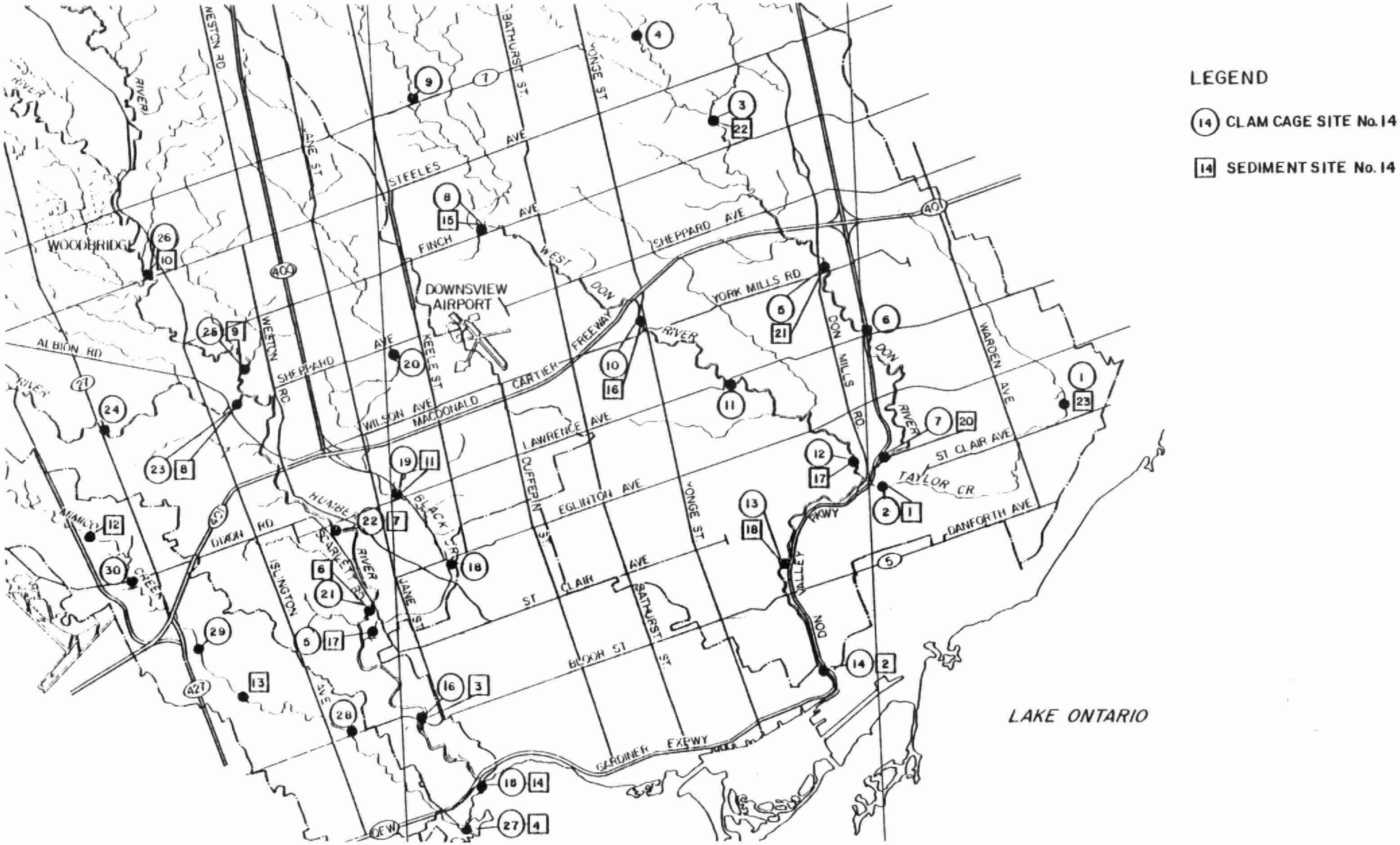

FIG. 5

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TORONTO AREA WATERSHED MANAGEMENT STUDY-TAWMS 82

SEDIMENT SAMPLING AND CLAM CAGE SITES

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Sample bottles were provided by the MOE Central Laboratory. Water samples were handled and preserved in accordance with instructions in MOE, 1981.

Sediment Samples

Sediment samples were taken from at least five places across the stream at each sampling site (Figure 5). These samples were pooled and mixed, then composite sediment samples were collected from the mixed sediment.

Clam Bioaccumulation Study

Clams used in the bioaccumulation study were *Elliptio complanata* from Balsam Lake, Ontario. Ten clams were placed in each wire cage and the cages were placed in the water (Figure 5) for roughly 3 weeks. When the clams were retrieved from the water they were shucked and the clam tissue samples were frozen to preserve them.

Fish

Data on organic compounds in fish from the Humber River were provided by MOE.

2.4 - Chemical Analysis

Samples of water, sediment, and clam tissue were analyzed by the MOE Central Laboratory using procedures described in MOE, 1981.

Table 2 shows the parameters measured in water samples. Four classes of parameters were measured

- conventional water quality parameters
- bacteria
- trace inorganic parameters
- pesticides and organic compounds.

TABLE 2

WATER QUALITY PARAMETERS MEASURED

Conventional Water Quality Parameters

BOD_5
NH_4, total filtered reactive
pH
Phosphates, filtered reactive
Phosphorus, unfiltered total
Residue, filtrate (TDS)
Residue, particulate (TSS)
Dissolved organic carbon

Trace Inorganic Contaminants (Metals)

Cadmium, unfiltered total
Chromium, unfiltered total
Copper, unfiltered total
Mercury, unfiltered total
Nickel, unfiltered total
Lead, unfiltered total
Zinc, unfiltered total

Bacteria

Fecal coliforms
Fecal streptococci
Pseudomonas aeruginosa
Pseudomonas aeruginosa background

Pesticides and Organic Compounds

Aldrin (ALDR)*
α-BHC hexachlorocyclohexane (BHCA)
β-BHC hexachlorocyclohexane (BHCB)
γ-BHC (Lindane) (BHCG)
α-chlordane (CHLA)
γ-chlordane (CHLG)
Dieldrin (DIEL)
DMDT Methoxychlor (DMDT)
Endosulfan I (END1)
Endosulfan II (END2)
Endrin (ENDR)
Endosulfan sulfate (ENDS)
Heptachlorepoxide (HEPE)
Heptachlor (HEPT)
Mirex (MIRX)
Oxychlordane (OCHL)
OP - DDT (OPDT)
PCB, Total (PCBT)
PP - DDD (PPDD)
PP - DDE (PPDE)
PP - DDT (PPDT)
2,4,5 - Trichlorophenoxyacetic acid (245T)
2,4 - Dichlorophenoxyacetic acid (24D)
2,4 - Dichlorophenoxybutyric acid (24DB)
2,4-D Propionic acid (24DP)
Dicamba (DICA)
Picloram (PICL)
Silvex (SILV)
Hexachlorobenzene (HCB)
2,3,4 - Trichlorophenol (234)
2,3,4,5 - Tetrachlorophenol (2345)
2,3,5,6 - Tetrachlorophenol (2356)
2,4,5 - Trichlorophenol (245)
2,4,6 - Trichlorophenol (246)
Pentachlorophenol (PCPH)

*Coded symbols used in annexes.
Based on last four characters of the MOE Laboratory Information System (LIS) parameter code.

The conventional water quality parameters included nutrients such as total ammonium (sum of NH_4^+ and NH_3) and total phosphorus, pollution indicators such as BOD_5 (5-d biochemical oxygen demand), and gross descriptors of water quality such as residue filtrate (total dissolved solids) and residue particulate (total suspended solids).

The trace inorganic compounds were metals that can be toxic at high concentrations. The bacteria included organisms that indicate the potential presence of pathogens (disease-causing organisms). The pesticides and organic compounds included a wide range of compounds that can be toxic.

Most parameters were measured in both fall and spring samples. DOC (dissolved organic carbon) was measured in spring samples in place of BOD_5 at the request of MOE. Pseudomonas aeruginosa was added to the analytical program for spring because of concern about bacterial pollution of Toronto's waterfront.

All seven of the trace inorganic parameters and all 44 of the pesticides and organic compounds measured in water were also measured in sediments. In addition, residual total loss on ignition was measured in sediments.

In clams, a smaller number of pesticides and organic compounds were measured. These were

- aldrin
- α-BHC hexachlorocyclohexane
- β-BHC hexachlorocyclohexane
- γ-BHC hexachlorocyclohexane
- α-chlordane
- γ-chlordane
- heptachlor
- mirex
- OP-DDT
- PCB, total
- PP-DDD
- PP-DDE

- PP-DDT
- 2,4-D propionic acid
- hexachlorobenzene
- octachlorostyrene.

In addition, percent lipid was measured in clam tissue.

2.5 - Mathematical Modeling

Justification

Environmental processes can be represented by equations developed in research studies. A collection of equations that describes the behavior of an environmental system such as a watershed is a mathematical "model" of the system.

There are two important reasons for preparing mathematical models during environmental management studies.

(1) Preparing a representative model leads to a better understanding of the system under investigation. Better understanding contributes to sounder management decisions.

(2) Using the model, one can make predictions about the behavior of the modeled system under many different conditions. In effect, one can do simulated environmental management experiments using the model. Actual physical experiments to determine the probable consequences of environmental management decisions can be expensive, time consuming and potentially harmful to the environment.

In a general sense, any description, be it physical, mathematical, conceptual, or intuitive, of an environmental system is a model. A computerized mathematical model is merely a convenient way to present and apply man's understanding of an environmental system when one wishes to make quantitative predictions about the behavior of that system.

Preparation

The equations that compose a mathematical model are developed through basic research. Equations describing the environmental system under investigation are linked together in a convenient form and coded in a computer language.

The resulting computer program is a general representation of a type of environmental system. It is not yet a model of a particular system. The equations composing the program contain "parameters", or numbers that are specific to each system being modeled. The modeler must select parameters that enable the mathematical model to mimic the behavior of the real system. These parameters are taken from the published technical literature or determined through site-specific field studies. The process of selecting parameters that allow the model to represent the real system adequately is called "calibration".

The calibrated mathematical model is not quite ready for use. The parameters selected for the model were chosen to allow the model to mimic the real system under only one set of conditions, for instance, using only one year's data from the real system. Before the model is used, its predictive ability should be checked under another set of conditions, for instance, using data for a different year from the real system. If the model represents the system's behavior adequately under the new conditions, it is considered ready for use. If it does not, its parameters should be adjusted until the model simulates the real system under both sets of conditions. Then the model can be used with some confidence in its predictive ability. The process of checking a model under a different set of conditions from the set for which it was calibrated is called "verification". The calibrated, verified mathematical model is ready to be used as a management tool.

HSP-F

HSP-F stands for Hydrological Simulation Program - FORTRAN. It is a mathematical model developed by the United States Environmental

Protection Agency (US EPA) which is capable of continuous simulation of hydrologic and water quality processes in a watershed. "Continuous simulation" means the use of long-term meteorologic records to generate long-term records of river flows. On the assumption that hydrologic conditions are critically important to water quality processes, the long-term flow records are used to generate long-term records of water quality. Long-term simulated water quality can be used to determine the probability that the concentration of a water quality constituent will exceed its Provincial Water Quality Objective under the meteorologic conditions used for the simulation. The probabilities of Objective exceedances generated by HSP-F for different management strategies can be used by environmental managers when deciding which strategies should be implemented.

HSP-F represents a drainage basin as a network of land segments and river reaches. Two types of land segments are used: pervious and impervious.

Pervious land segments permit significant amounts of precipitation to infiltrate into the ground. Water and associated solid material can move from a pervious land segment to a river reach as

- overland flow
- interflow
- active groundwater flow.

Open fields, parks, and cemeteries are examples of land areas that would be represented by pervious land segments in HSP-F.

Impervious land segment do not permit precipitation to infiltrate. Water and associated solid material can move from an impervious land segment to a river reach only as overland flow. Roads, paved parking lots, and densely populated areas are examples of land areas that would be represented by impervious land segments in HSP-F.

Solids and specific pollutants can be accumulated on pervious and impervious land segments and removed in surface runoff. Pollutants can be removed as dissolved species or in association with suspended solids.

Overland flow, interflow, and groundwater flow from land segments find their way into the adjacent reach. The reach simulates flows and water quality processes within single, open-channel reaches or within completely mixed lakes or reservoirs. Water is conveyed downstream to the next reach in the network. Water quality processes such as advection, general first-order decay, settling, adsorption/desorption, reaeration, and photosynthesis are simulated within HSP-F reaches.

HSP-F requires large amounts of two types of input data. The first type is data describing the physical characteristics of land segments and reaches. Examples are land segment slope, flow path length, roughness coefficients, and infiltration rates and reach discharge, volume, and surface area for a variety of stages. These types of data are generally constant with respect to time. The second type of input data is time series data such as precipitation, evaporation, and solar radiation used to simulate hydrologic processes through time.

Use of HSP-F

One purpose of the TAWMS 82 study was to implement HSP-F for the Humber River system as follows.

(1) Simulate Humber River flow by calibrating HSP-F for the fall 1982 period.

(2) Simulate the behavior of residue filtrate (total dissolved solids) in the Humber River by calibrating HSP-F for the fall 1982 period.

(3) Simulate Humber River flow by calibrating HSP-F, including the snowmelt module, for the winter 1982/83 and spring 1983 period.

These calibrations were done and the parameter values used to achieve calibration were delivered to MOE.

Several time series of meteorologic and hydrologic data are needed to run HSP-F for the Humber River. For hydrologic simulation when air temperatures are above freezing, these time series are

- precipitation on the Humber waterhsed

- evapotranspiration from the Humber watershed

- flows entering the main stem Humber River from the Humber River upstream from Elder Mills, from the East Humber River, from the West Humber River at Claireville Dam, and from Black Creek.

For hydrologic simulation when air temperatures are below freezing and simulation of snow pack accumulation and melting are desired, the above time series plus the following are needed

- wind speed
- global solar radiation
- dry bulb temperature
- dew point temperature.

For simulation of residue filtrate, the time series needed for hydrologic simulation are required and the following time series are also required

- residue filtrate loadings to the main stem Humber River from the Humber River upstream from Elder Mills, from the East Humber River at Pine Grove, from the West Humber River at Claireville dam, and from Black Creek.

Meteorologic time series were obtained from AES and Metropolitan Toronto. Discharge time series were obtained from WSC and MTRCA. The time series of residue filtrate were synthesized by a modification of the flow-interval method (Verhoff et al, 1980) for calculating loadings. This method is based on the assumed dependence of a water quality constituent on flow. In the Humber River, residue filtrate concentration tends to decrease with increasing flow. The steps in this synthesis were as follows for each water sampling site.

(1) Flows (Q_i) and residue filtrate (RSF_i) were measured during the TAWMS 82 program ($i = 1, 2, \ldots m$, where m = number of measurements) at TAWMS water sampling sites. Data from Site 10 were used to synthesize RSF loadings at Elder Mills and Pine Grove. Data from Site 8 were used to synthesize RSF loadings at Claireville Dam.

(2) A flow greater than the maximum observed flow was chosen (Q_{max}) and divided into n equal flow intervals.

$$\Delta Q = \frac{Q_{max}}{n}$$

Then for $Q_j = j \times \Delta Q$, the flow interval, j, contains all flows greater than Q_{j-1} and less than Q_j.

(3) In each of the j flow intervals there were k_j flows and k_j RSF concentrations. The RSF flux (J_i) was determined for each measured flow by multiplying the flow by the RSF concentration.

$$J_i = (Q_i)\ (RSF_i)$$

(4) All fluxes calculated using flows falling in a given flow interval were summed. All flows falling in the flow interval were summed. The flow-weighted mean RSF concentration (RSF_j) for the interval was computed by dividing the sum of fluxes in the interval by the sum of flows in the interval.

$$RSF_j = \sum_{\ell=1}^{k_j} J_{j\ell} \Big/ \sum_{\ell=1}^{k_j} Q_{j\ell}$$

(5) Time series of hourly flows (Q_{WSC}) were then obtained from Water Survey of Canada stream flow gauges at Elder Mills, Pine Grove, and Black Creek and from MTRCA operating records at Claireville Dam. Each WSC flow was multiplied by the flow-weighted mean RSF concentration for the flow interval into which the WSC flow fell. This gave a synthetic time series of hourly RSF loadings to be used as an input time series by HSP-F.

$$RSF_{HSP-F} = (RSFj)\ (Q_{WSC})$$

The river flows generated by HSP-F were used in the analysis of water quality data. To calculate event loadings of water quality constituents, one needs a record of flow for the entire event. There are continuous-recording stream gauges at or near only three of the TAWMS 82 water sampling sites on the Humber River. Consequently, synthetic flow records were generated by HSP-F for each water sampling site on the Humber River and Black Creek so event flows would be available for all sites. These synthetic flow records were used to calculate event loadings and to prepare pollutographs as described in the next section.

2.6 - Data Analysis

Figure 6 is a flow chart of the water quality data analysis procedure used in this study. All computer data analysis was done using a VAX 11/780 computer with source programs coded in FORTRAN.

Archiving

Water quality data were received from the MOE Central Laboratory on its Laboratory Information System forms. These data were entered as received directly into data files in Acres computer system. The data in these files were then converted to a uniform format and stored in archive files. Archive files were also created for sediment chemistry data, clam tissue chemistry data, and flow data. Data in the archive files served as input for all subsequent analyses.

Summary

Annexes 1 to 3 were prepared to summarize the data. Some simple descriptive statistics determined for wet event and Spring Runoff data were included in the annex of water quality data. Minima and maxima were reported for all parameters but the organics. Arithmetic means were computed for conventional water quality parameters and trace inorganic parameters and geometric means were computed for the bacteria. Values qualified by MOE as "actual result is less than the reported value" were used when means were calculated. Some means are therefore overestimates. For the organic parameters, the number of times each parameter was detected was determined and the range of detected values was reported.

Exceedances

MOE (1978) has set water quality Objectives for the protection of aquatic life in Ontario's surface waters. Water quality data collected during the TAWMS 82 study were compared with these Objectives. If there was no MOE Objective for a parameter, a guideline for the protection of aquatic life cited by McNeely et al (1979) was used, if one existed. A few exceedance statistics were also determined. The following definitions apply.

(1) Exceedance - An instance when the measured value of a parameter (V) was higher than the Objective or guideline for that parameter (O) was called an "exceedance" (V>O).

(2) Exceedance Factor - For this study, the ratio of the measured value to the Objective or guideline was defined as the "exceedance factor" (Fe = V/O). Exceedance factors were calculated only when an exceedance occurred, so the factors were always 1.0 or greater.

(3) Average Exceedance Factor - The arithmetic mean of all exceedance factors at a particular site during a particular event was called the "average exceedance factor".

$$\overline{Fe} = \frac{1}{n} \sum_{i=1}^{n} Fe_i$$

where

n = number of exceedances for a parameter at a site during one event

Average exceedance factors were generated to facilitate comparisons between sites and between events.

(4) Overall Exceedance Factor - The arithmetic mean of all average exceedance factors for a particular site was called the "overall exceedance factor".

$$\hat{Fe} = \sum_{i=1}^{m} \overline{Fe}_i$$

where

m = number of average exceedance factors for a parameter at a site during TAWMS 82

The overall exceedance factor was used as a general indicator of Objective or guideline exceedance at a site.

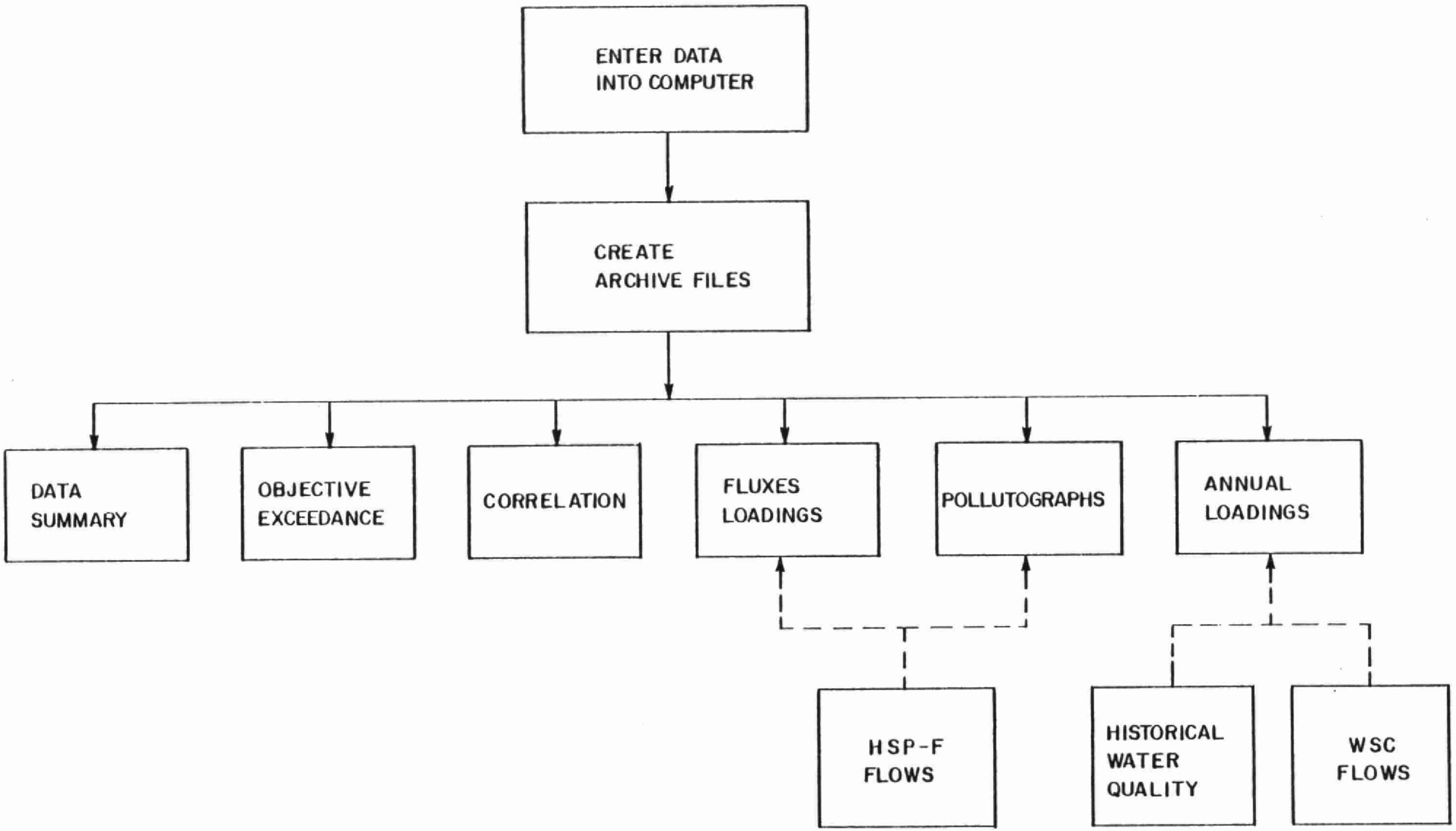


FIG. 6

ONTARIO MINISTRY OF ENVIRONMENT
TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82

WATER QUALITY DATA ANALYSIS PROCEDURE

ACRES

Correlation

Multiple correlation analysis was done to determine the degree of association between pairs of selected parameters. For this analysis, data for all of the conventional water quality parameters but BOD_5 and all of the metals but mercury were used. Data for fecal coliforms and fecal streptococci were used as representative indicator bacteria. Discharge data were included in the analysis to assess the association between these parameters and streamflow. The program used for multiple correlation analysis was a modified version of a program given by Davis (1973).

Fluxes and Loadings

To assess the relative importance of different portions of the Humber watershed as sources of contaminants, the subbasins described in Section 2.2 were combined into six subbasins as follows

- Upper Humber, the drainage area upstream from Site 10 (Drainage Area 10, Table 1)

- West Humber, the drainage area upstream from Site 8 (Drainage Area 8, Table 1)

- Upper Black Creek, the drainage area upstream from Site 11 (Drainage Area 11, Table 1)

- Lower Black Creek, the drainage area upstream from Site 5 but downstream from Site 11 (Drainage Area 5, Table 1)

- Mid Humber, the drainage area upstream from Site 7 but downstream from Site 10, excluding the West Humber drainage area (Drainage Areas 7, 9 and 12, Table 1)

- Lower Humber, the drainage area upstream from Site 3 but downstream from Site 7, excluding the Black Creek drainage area (Drainage Areas 3 and 6, Table 1).

Flow data collected during water sampling were not representative of the entire event hydrograph. Consequently, flows generated by HSP-F were used to produce synthetic event hydrographs for use in event mass flux calculations.

In this report, flux (J) is taken to mean the rate of mass transport. Flux is the product of parameter concentration and flow and it has dimensions of mass per unit time. Flux is a measure of the total quantity of a contaminant passing a place per unit time. Concentration alone does not convey this information.

Loading (L) is taken to mean the total amount of a parameter transported during an event. It has dimensions of mass (or mass per event).

Fluxes were calculated for each of the two dry weather events by multiplying concentrations by HSP-F simulated flows at the time of sampling. Then the average dry weather flux at each site was found by taking the arithmetic mean of the two dry weather fluxes at that site. Average dry weather flux from each of the six Humber subbasins was found by subtracting the fluxes into the subbasin from the flux out of the subbasin.

For wet events, the flux was assumed to be made up of two parts, the base flow flux and the runoff flux. These fluxes were used to calculate base flow and runoff loadings for the entire wet event at each site. The steps in this procedure were as follows.

(1) Using the simulated hydrograph for the event (Figure 7), base flow (Q_b) was separated from combined flow (Q_c). This gave a series of simulated combined flows, separated base flows, and runoff flows (Q_r) spaced at equal time intervals.

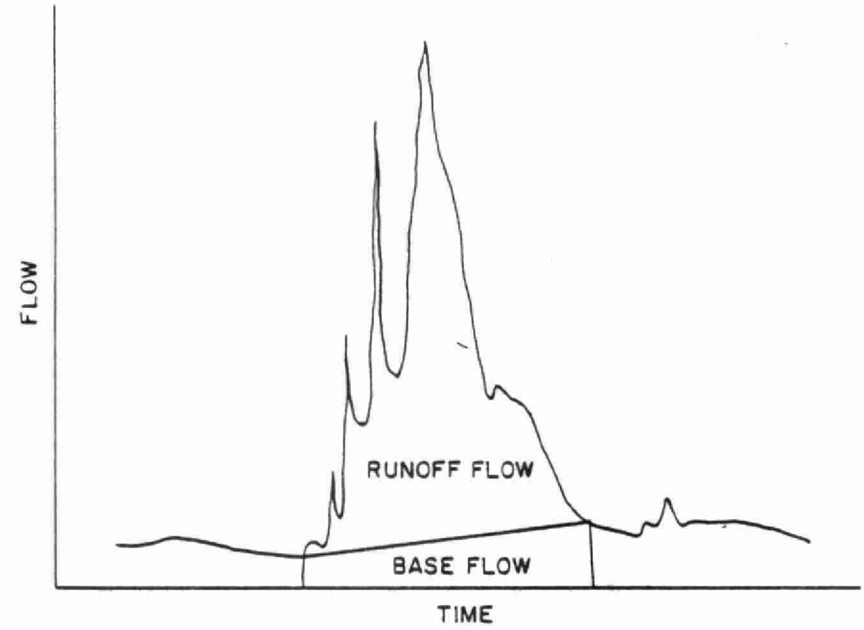


FIG. 7 - BASE FLOW SEPARATION

(2) A flow-weighted average of the two dry weather concentrations was computed (C_b).

(3) For each sampling time, base flow flux ($Q_b \cdot C_b$) was subtracted from combined flux ($Q_c \cdot C_c$) to give runoff flux.

(4) For each sampling time, base flow was subtracted from combined flow to give runoff flow.

(5) Total runoff loading for the sampled portion of the event (L_{sr}) was determined by numerically integrating the runoff fluxes using the trapezoidal rule for the integration.

(6) Total runoff flow volume for the sampled portions of the event (V_{sr}) was determined by numerically integrating the runoff flows using the trapezoidal rule for the integration.

(7) Average runoff concentration for the event (C_r) was computed by dividing L_{sr} and V_{sr}.

(8) Base flow loading for the entire event was calculated by multiplying each element in the time series of separated base flows for the event (Q_b) by the calculated base flow concentration (C_b) and the time interval between successive Q_b's and then summing the resulting products

$$L_b = \sum(Q_b \cdot C_b \cdot \Delta T)$$

(9) Runoff loading for the entire event was calculated in a similar manner. Each element in the time series of runoff flows was multiplied by the average runoff concentration (C_r) and the time interval between successive Q_r's. The resulting products were added to give the runoff event loading.

$$L_r = \sum(Q_r \cdot C_r \cdot \Delta T)$$

Wet event loadings from each of the six Humber subbasins were found by subtracting the loadings into the subbasin from the loading out of that subbasin.

For Spring Runoff, event loadings were calculated using the flow interval method described in Section 2.5. Measured concentrations and HSP-F-simulated flows were used to generate a series of hourly loadings for the entire duration of the Spring Runoff event at each site. These loadings were summed to give the Spring Runoff loading. Spring Runoff loadings from each of the six subbasins were found by subtracting the loadings into the subbasin from the loading out of that subbasin.

Results of flux and loading calculations for five selected parameters are given in this report.

- cadmium
- copper
- lead
- fecal coliforms
- total ammonium.

Lead, cadmium and copper are toxic trace metals that frequently exceeded their respective MOE Objectives in the TAWMS study area. These three metals also exhibit a range of solubilities and affinities for particulate materials. Fecal coliforms were considered because of recent concern about bacterial pollution of nearshore Lake Ontario by the Humber River. Total ammonium was considered as a representative nutrient that can also be toxic when present in large quantities.

Pollutographs

Pollutographs are conceptually similar to hydrographs. Where a hydrograph displays the variation of flow with time during a storm, a pollutograph displays the variation of parameter concentration with time. Pollutographs were prepared for representative parameters to illustrate their behavior during wet events.

Annual Loadings

Annual loadings of selected parameters were evaluated using the flow interval method described in Section 2.5. Historical and TAWMS 82 water quality data were used along with historical daily mean discharges to prepare time series of daily loadings over an eleven-year period. Daily loadings during a year were summed to give the annual loading for that year. The series of annual loadings were examined for significant trends using least-squares regression analysis.

Clam Bioaccumulation Study

Levels of pesticides and organic compounds in clam tissue, sediment, and water were examined to assess the potential for bioaccumulation of toxic substances. Concentration factors were calculated when possible. A concentration factor is the ratio of the level of a substance in solid to the level of that substance in water in contact with the solid. Concentration factors can also be determined for tissue and sediment or predator and prey. Concentration factors were not determined when either the numerator or the denominator in the ratio was a value less than the detection level.

3 - RESULTS

3 - RESULTS

3.1 - Event Description

The three wet events sampled all occurred in the fall of 1982, the first on October 20 and the last on November 21. Typical hydrographs at representative sites are presented in Figures 8, 9 and 10. These figures show the hydrographs of the events derived from WSC gauges near water sampling Sites 2, 5 and 7* together with information on the duration of rainfall and the sampling period.

The first event was a small, well-defined short rainfall event concentrated mainly in the lower part of the Humber River. The event was preceded by a long (>8-d) dry spell. Discharges at Site 10 were not influenced by the storm, indicating that there was little rural runoff. Sampling was begun prior to any rise in the hydrograph and continued through and beyond the peak. At sites on the main stem of the Humber, the flow increase was modest, as shown in the hydrograph for Site 7 where the increase above the base flow (of 3.2 m^3/s) was about 1.8 m^3/s.

For the second event, the sampling period covered the initial runoff phase and continued through the peak flow. In this case the sampled event had been preceded by a series of relatively intense but short storms with peak flows up to twice the peak of the sampled event. There was, therefore, no dry antecedent period. Low-intensity rainfall continued throughout the sampling period.

The final event was intermittent, producing more than one discharge peak. The sampling period was confined to the second peak. Peak flows were generally intermediate between the low flows of Event 1 and the highest sampled flows of Event 2. The precipitation in the latter case was mixed rain and snow. This event was preceded by a long (>10-d) dry period.

*The WSC gauge at Site 7 was only operational for the first event.

Table 3 summarizes the precipitation characteristics of the three wet events and Table 4 shows the relative volumes of base flow and direct runoff* for the Humber River sites.

The sampled portion of the Spring Runoff extended from March 10 to April 28, 1983. Figure 11 shows hydrographs for this period as derived from discharges measured by WSC gauges at Sites 5 and 7. Figure 4 shows the approximate relationship of water sample collections to the Spring Runoff hydrograph. Characteristics of precipitation during the Spring Runoff event are summarized in Table 3.

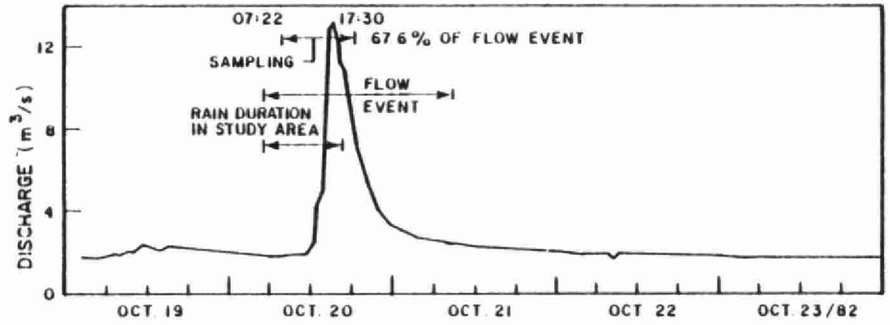
3.2 - Water Quality Data Summary

Analytical results and descriptive statistics for samples of water are contained in Annex 1. Table 5 is a summary of the water quality results. The values shown in Table 5 are arithmetic mean concentrations (geometric means for bacteria) calculated separately for dry events, wet events, and Spring Runoff at each site.

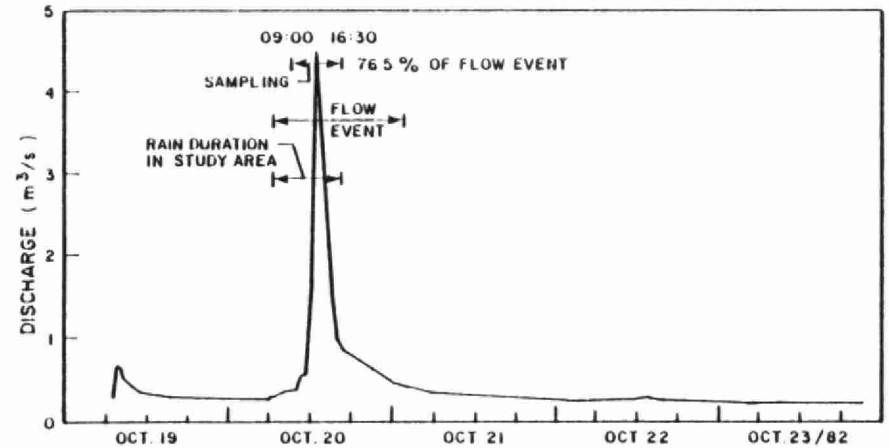
The parameters shown in Table 5 are arranged into four groups. The first group, the conventional water quality parameters, comprises the first eight parameters. The next four parameters make up the second group, the bacteria. The third group, the trace inorganic parameters, includes seven metals. The last group, the pesticides and organic compounds, contains 35 parameters. Only 27 of these were detected during TAWMS 82 and only the pesticides and organics actually detected are summarized in Table 5.

The water sampling sites shown in Table 5 are grouped into Humber River, Don River, and Mimico Creek sites. The Humber River sites are further divided into main stem Humber and tributary sites. With each group in Table 5, upstream sites are placed to the left of downstream

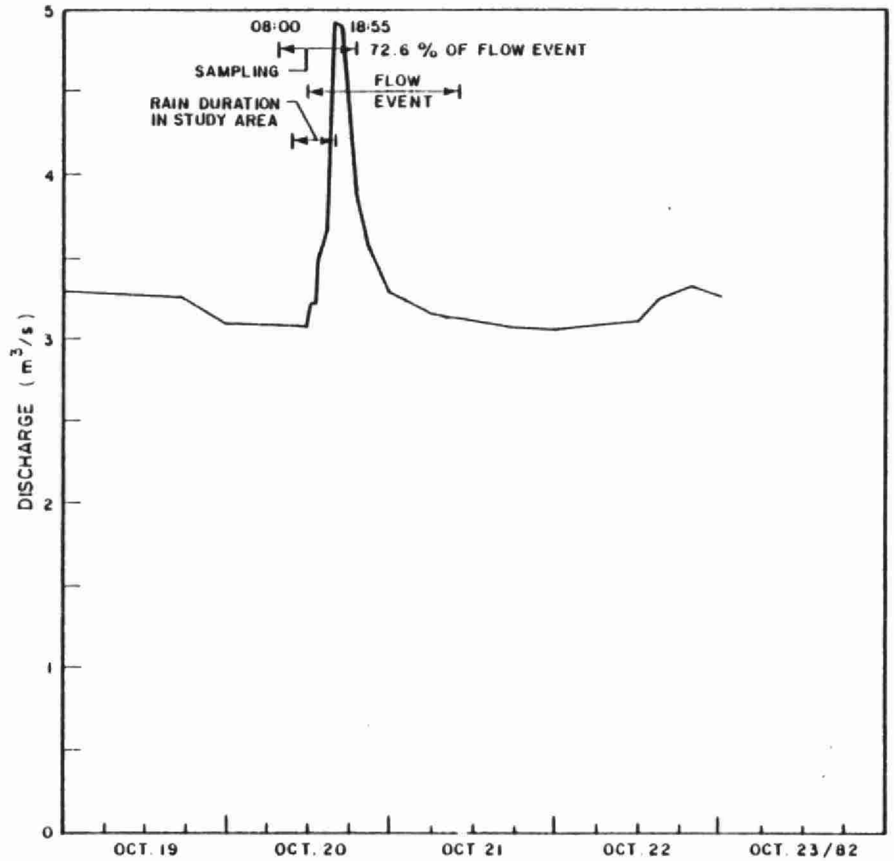
*Total volume = base flow plus direct runoff.



WSC GAUGE SITE – DON R. AT TODMORDEN
NEAR SAMPLING STATION 2



WSC GAUGE SITE – BLACK CREEK NEAR WESTON
NEAR SAMPLING STATION 5



WSC GAUGE SITE – HUMBER RIVER AT WESTON
NEAR SAMPLING STATION 7

FIG. 8

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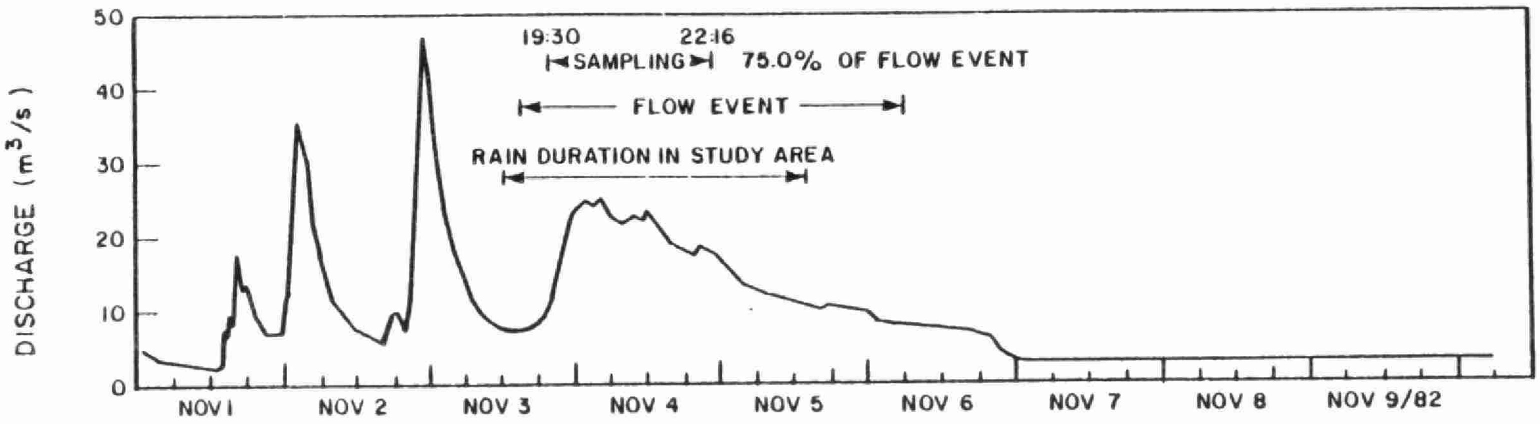
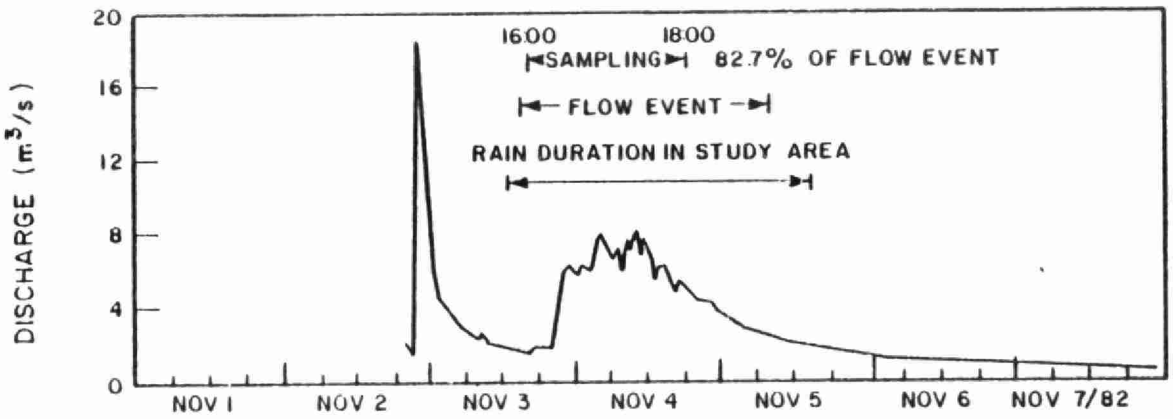
TORONTO AREA WATERSHED MANAGEMENT STUDY-TAWMS 82
WET EVENT No. I



WSC GAUGE SITE - DON R. AT TODMORDEN
NEAR SAMPLING STATION 2

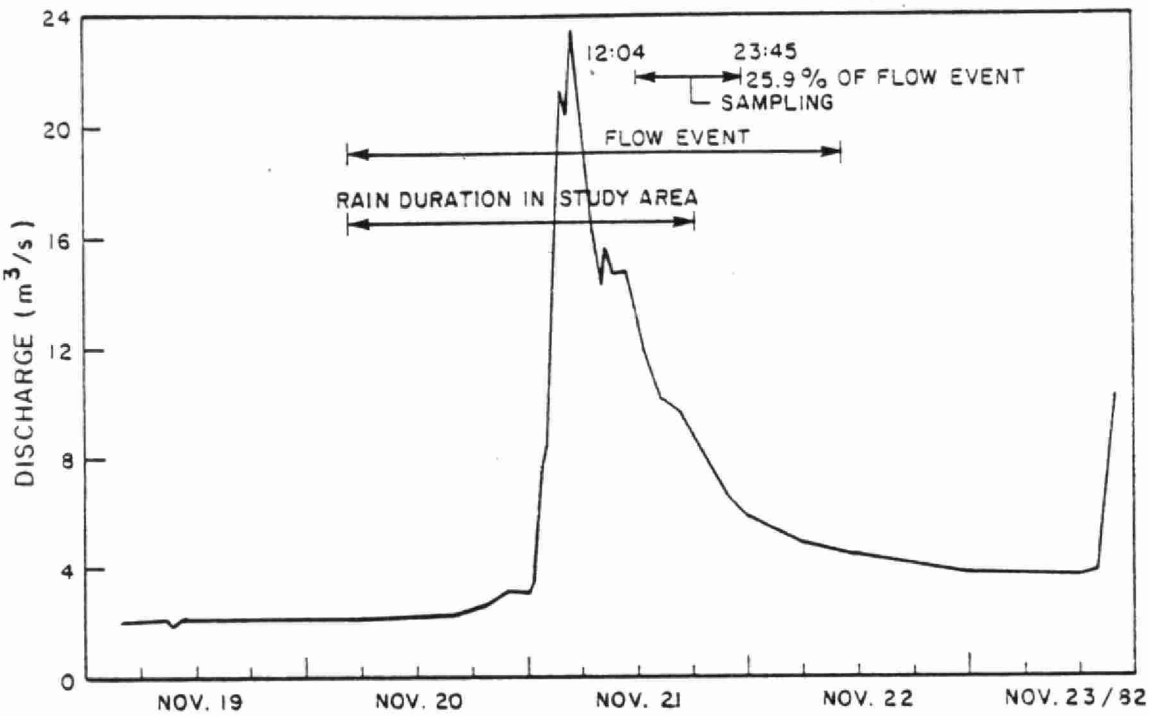


WSC GAUGE SITE - BLACK CREEK NEAR WESTON
NEAR SAMPLING STATION 5

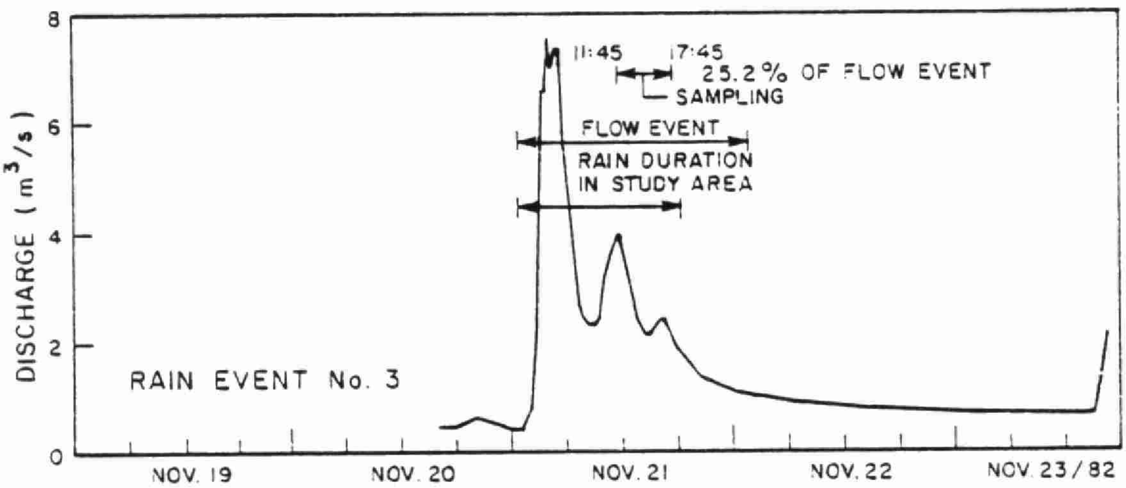
FIG. 9

ONTARIO MINISTRY OF ENVIRONMENT
TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82
WET EVENT No. 2

ACRES



WSC GAUGE SITE - DON R. AT TODMORDEN
NEAR SAMPLING STATION 2



WSC GAUGE SITE - BLACK CREEK NEAR WESTON
NEAR SAMPLING STATION 5

FIG. 10

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TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82
WET EVENT No. 3

ACRES

TABLE 3

PRECIPITATION DURING SAMPLED EVENTS*

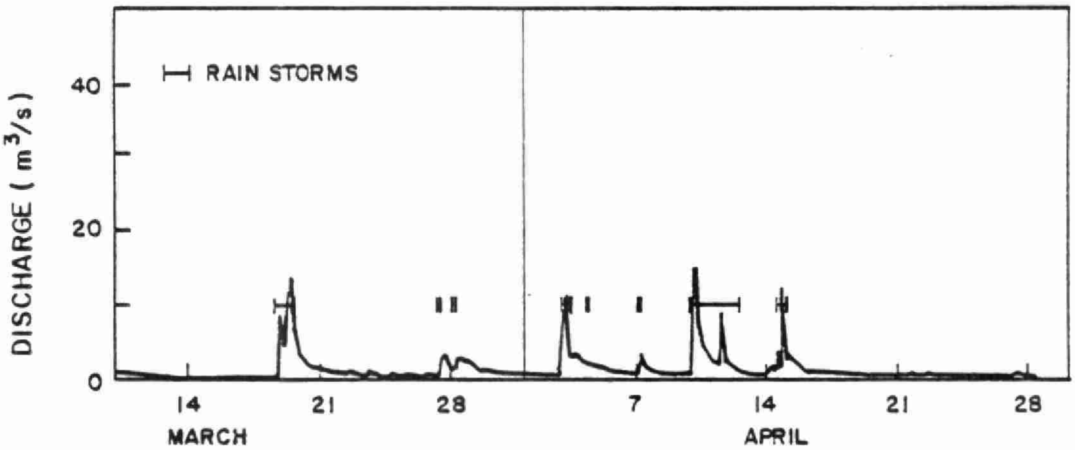
Sampled Event Name	Total Precipitation (mm)	Maximum Hourly Intensity (mm)	Duration (h)	Antecedent Period (d)
Wet No. 1	8.6	2.8	3	>8
Wet No. 2	25	1.8	27	<1
Wet No. 3**	7.9	2.7	6	>10
	3.2	1.0	9	<1
Spring Runoff				
Mar 18 - 19	35	5.5	24	6
Mar 27	8	1.8	7	4
Mar 28	3	1.0	6	<1
Apr 2 - 3	20	3.2	12	4
Apr 6 - 7	5	3.0	8	2
Apr 9 - 10	25	5.0	12	1
Apr 11	5	4.0	8	<1
Apr 13 - 14	15	4.5	24	2

* For urban Humber River portion of the study area only.
**Intermittent showers separated by 2 hours.

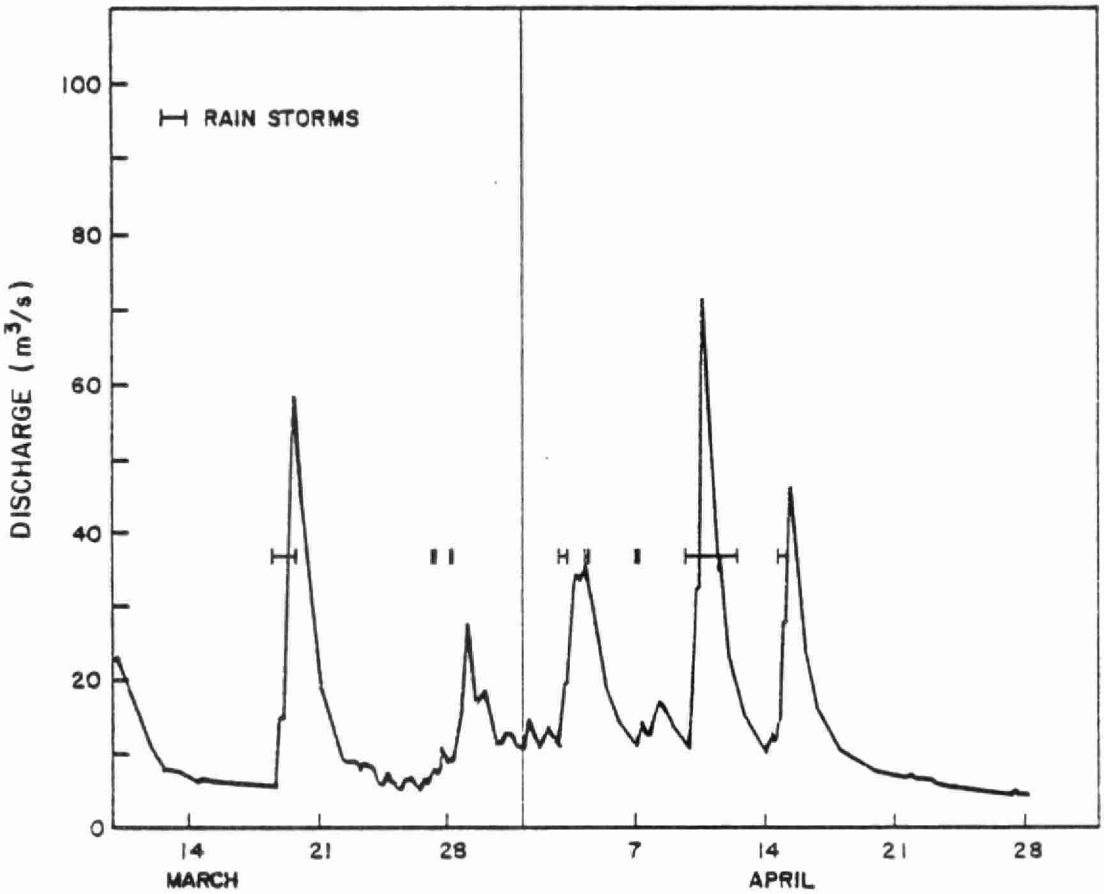
TABLE 4

FLOW DURING SAMPLED EVENTS

Site	Wet Event 1		Wet Event 2		Wet Event 3		Spring Runoff	
	Total Volume (10^3m^3)	Runoff/ Base Flow Ratio	Total Volume (10^3m^3)	Runoff/ Base Flow Ratio	Total Volume (10^3m^3)	Runoff/ Base Flow Ratio	Total Volume (10^3m^3)	Runoff/ Base Flow Ratio
10	84.9	0.011	6 360	2.57	4000	0.95	36 250	0.33
9	110.0	0.063	7 450	2.39	4560	0.89	38 130	0.34
7	325.0	0.10	12 700	3.24	6500	1.45	53 070	0.64
6	343.0	0.14	13 200	3.33	6690	1.49	54 170	0.65
3	475.0	0.18	15 500	3.43	7590	1.52	59 800	0.70
8	84.5	0.11	4 240	3.47	1770	2.84	13 800	1.40
11	48.3	2.38	1 390	2.73	249	2.76	3 690	0.51
5	85.5	3.17	1 970	3.35	359	3.53	4 830	0.65



BLACK CREEK NEAR WESTON, WINTER 1982 - 83



HUMBER RIVER AT WESTON, WINTER 1982 - 83

FIG. 11

ONTARIO MINISTRY OF ENVIRONMENT
TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82
SPRING RUNOFF

ACRES

TABLE 5

DATA SUMMARY

Parameter			Humber River									Don River		Mimico
			Main Stem Humber					Cook Creek	West Humber	Black Creek		Taylor Creek	Don River	Mimico Creek
			10	9	7	6	3	12	8	11	5	1	2	4
(a) Arithmetic Means+ of Conventional Water Quality Parameter and Bacteria Values in Annex 1														
BOD_5	(mg/L)	dry	0.86	0.82	1.12	1.02	0.98		0.68	1.43	1.75	0.97	8.58	0.94
		wet	1.13	1.57	1.63	1.54	1.76		2.70	5.58	8.35	2.66	5.61	5.97
DOC	(mg/L)	spring	3.96	3.98	4.29	4.32	4.21	3.13	5.58	3.07	2.85			3.33
NH_4	(mg/L)	dry	0.011*	0.021	0.03	0.035	0.044		0.023	0.065	0.006*	0.051	1.395	0.065
		wet	0.054*	0.031*	0.009*	0.008	0.017*		0.011*	0.133*	0.352*	0.020*	0.132*	0.078*
		spring	0.005*	0.008*	0.007*	0.005*	0.020*	0.063*	0.007*	0.029*	0.007*			0.125*
pH		dry	8.40	8.40	8.52	8.48	8.46		8.48	8.26	8.34	8.26	7.54	8.27
		wet	8.37	8.40	8.34	8.32	8.30		8.29	7.95	7.83	7.95	8.08	7.92
		spring	8.15	8.12	8.06	8.03	8.02	7.66	7.96	7.85	7.77			7.8
Phosphates, filtered reactive	(mg/L)	dry	0.0058	0.0058	0.0052	0.0055	0.0042		0.0035	0.0975	0.1875	0.0160	0.0615	0.0045
		wet	0.0234	0.0487	0.0217	0.0222	0.0230		0.0276	0.0533	0.1302	0.0529	0.0895	0.0887
		spring	0.0176	0.0822	0.0941	0.0516	0.0780*	0.1650	0.0248	0.0278	0.0354			0.0228
Phosphorus, unfiltered total	(mg/L)	dry	0.020	0.023	0.021	0.021	0.020		0.018	0.169	0.270	0.038	0.245	0.022
		wet	0.150	0.253	0.177	0.176	0.205		0.126	0.340	0.510	0.190	0.413	0.378
		spring	0.221	0.300	0.290	0.246	0.273	0.576	0.168	0.191	0.241			0.204
Residue, filtrate	(mg/L)	dry	360	381	358	374	430		471	912	1028	866	696	724
		wet	366	356	369	376	386		413	356	405	406	417	390
		spring	382	401	428	455	479	986	448	1038	1056			870
Residue, particulate	(mg/L)	dry	16.20	5.72	9.80	12.60	5.22		2.52	12.81	9.58	4.97	12.30	26.75
		wet	111.75	132.03	124.68	122.72	122.50		67.39	135.53	104.02	52.15	135.19	92.55
		spring	169.71	158.40	132.54	134.85	130.83	52.10	103.76	66.19	51.70			96.23
Fecal coliform	(counts/ 100 mL)	dry**	55	81	49	95	270		106	783	2418	2085	21 500	403
		wet**	311	594*	762	798	1154*		878	1554	9160*	4023*	9318	1902*
		spring**	105*	127*	114	145*	278*	603	137*	574	1280			131*

Table 5
Data Summary - 2

Parameter			Humber River: Main Stem Humber 10	9	7	6	3	Cook Creek 12	West Humber 8	Black Creek 11	5	Don River: Taylor Creek 1	Don River 2	Mimico: Mimico Creek 4
(a) Arithmetic Means+ of Conventional Water Quality Parameter and Bacteria Values in Annex 1 (cont)														
Fecal streptococci	(counts/ 100 mL)	dry**	35	69	55	101	89		45	247	230	214	1012	285
		wet**	667	1705	1487	1409	1524		1221*	3701	8903*	2596*	4321	4313
		spring**	62*	122*	142*	165*	163*	302	155*	251	419			363
Pseudomonas aeruginosa	(counts/ 100 mL)	spring**	13*	13*	13*	13*	17*	22*	12*	37*	72*			17*
Pseudomonas aeruginosa background	(counts/ 100 mL)	spring**	27*	33*	32*	29*	32*	45*	32*	61*	56*			36*
(b) Arithmetic Means+ of Trace Inorganic Parameters (Metals) Values in Annex 1														
Cadmium	(mg/L)	dry	0.0003*	0.0002*	0.0002*	0.0002*	0.0002*		0.0003*	0.0012*	0.0004*	0.0004*	0.0003*	0.0002*
		wet	0.0003*	0.0002*	0.0003*	0.0003*	0.0004		0.0002*	0.0005	0.0009	0.0005	0.0007	0.0007*
		spring	0.0006*	0.0006*	0.0005*	0.0007*	0.0007*	0.0008*	0.0006*	0.0007*	0.0008*			0.0008*
Chromium	(mg/L)	dry	0.002	0.002	0.002	0.004	0.004		0.002	0.005	0.030	0.004	0.010	0.006
		wet	0.005	0.008	0.006	0.006	0.007		0.005	0.009	0.014	0.007	0.010	0.023
		spring	0.006*	0.010	0.008	0.008	0.008	0.157*	0.005	0.007*	0.011*			0.012
Copper	(mg/L)	dry	0.008	0.006	0.006	0.006	0.008		0.008	0.014	0.018	0.014	0.013	0.014
		wet	0.011	0.022	0.014	0.013	0.029		0.013	0.023	0.029	0.044	0.036	0.022
		spring	0.017	0.472	0.017	0.018	0.019	0.032	0.016	0.024	0.026			0.023
Mercury	(μg/L)	dry	0.040*	0.040*	0.040*	0.040*	0.040*		0.040*	0.040*	0.040*	0.050*	0.040*	0.040*
		wet	-	0.032*	-	-	-		0.033*	0.071*	0.081	0.040*	0.054	0.033*
		spring	-	-	-	-	-		-	-	-	-	-	-
Nickel	(mg/L)	dry	0.001*	0.002	0.004	0.004	0.002		0.001*	0.002	0.010	0.003	0.012	0.002
		wet	0.003*	0.004*	0.007	0.004	0.005*		0.003*	0.008	0.011	0.005	0.020	0.013*
		spring	0.008	0.009*	0.008*	0.008*	0.008*	0.013	0.006	0.009	0.009			0.008

Table 5
Data Summary - 3

Parameter			Humber River									Don River		Mimico
			Main Stem Humber					Cook Creek	West Humber	Black Creek		Taylor Creek	Don River	Mimico Creek
			10	9	7	6	3	12	8	11	5	1	2	4
(b) Arithmetic Means+ of Trace Inorganic Parameters (Metals) Values in Annex 1 (cont)														
Lead	(mg/L)	dry	0.004*	0.003*	0.004*	0.006*	0.003*		0.004*	0.011	0.006	0.004*	0.032	0.006
		wet	0.008*	0.010*	0.011	0.012*	0.018		0.012	0.076	0.079	0.046	0.044	0.031*
		spring	0.007*	0.013*	0.013*	0.015*	0.023*	0.047*	0.016*	0.041*	0.038			0.028
Zinc	(mg/L)	dry	0.016	0.003	0.004	0.024	0.006		0.002	0.022	0.044	0.014	0.052	0.028
		wet	0.019	0.022	0.031	0.030	0.034		0.021	0.115	0.115	0.076	0.161	0.085
		spring	0.017*	0.027	0.026*	0.028*	0.035*	0.119	0.023	0.061	0.063			0.068
(c) Sample Range (and Number of Valid Samples) of Pesticides and Organic Compound Values in Annex 1														
α-BHC hexachlorocyclohexane		dry	10 (1)	2 (1)	3 (1)	2 (1)	2 (1)		4 (1)	2 - 4 (2)	2 (1)	2 (1)	7 (1)	7 (1)
		wet	2 - 5 (4)	2 - 9 (5)	2 - 8 (6)	3 - 9 (4)	4 - 6 (5)		3 - 8 (6)	6 - 13 (6)	10 - 14 (5)	6 - 20 (5)	4 - 13 (4)	9 - 18 (6)
		spring	4 (1)	1 - 4 (6)	1 - 4 (5)	2 - 4 (5)	2 - 10 (9)	2 - 8 (4)	2 - 6 (6)	2 - 4 (9)	2 - 25 (10)			3 - 15 (9)
β-BHC hexachlorocyclohexane		dry	-	-	-	-	-		-	-	-	-	5 (1)	7 (1)
		wet	-	4 (2)	6 (1)	3 - 5 (2)	5 (1)		-	5 - 8 (4)	4 - 10 (5)	7 - 20 (2)	4 - 12 (4)	4 - 12 (5)
		spring	-	-	-	-	-	-	-	-	-			2 (1)
γ-BHC hexachlorocyclohexane		dry	-	3 (1)	5 (1)	-	-		5 (1)	1 - 5 (2)	2 (1)	-	12 (1)	4 (1)
		wet	2 - 8 (4)	3 - 10 (4)	2 - 8 (4)	2 - 7 (3)	2 - 7 (3)		2 - 6 (5)	6 - 16 (6)	4 - 6 (5)	5 - 49 (5)	7 - 10 (3)	4 - 18 (6)
		spring	-	1 (1)	-	-	2 - 2 (2)	4 (1)	1 (1)	1 - 4 (4)	4 - 4 (2)			2 - 5 (4)

Table 5
Data Summary - 4

Parameter		Humber River: Main Stem Humber 10	9	7	6	3	Cook Creek 12	West Humber 8	Black Creek 11	5	Don River: Taylor Creek 1	Don River 2	Mimico: Mimico Creek 4
(c) Sample Range (and Number of Valid Samples) of Pesticides and Organic Compound Values in Annex 1 (cont)													
α-Chlordane	dry	-	-	-	-	-		-	-	-	-	-	4 (1)
	wet	-	-	-	-	-		-	2 - 3 (2)	6 - 20 (2)	5 - 12 (3)	6 (1)	4 - 6 (2)
	spring	-	-	-	-	7 (1)	-	-	-	-			3 (1)
γ-Chlordane	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	2 (1)		-	4 - 5 (2)	6 - 14 (2)	3 - 5 (3)	-	2 - 3 (2)
	spring	-	5 (1)	-	-	5 (1)	7 (1)	-	2 (1)	-			4 (1)
Dieldrin	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	2 (1)	-	-	-		-	-	6 (1)	-	-	2 (1)
	spring	-	4 (1)	-	-	-	-	4 (1)	-	2 - 6 (2)			-
Methoxychlor	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	-	-	-	-	-
	spring	-	-	5 (1)	-	-	-	-	5 (1)	-			-
Endosulfan I	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	-	-	-	-	-
	spring	-	-	-	-	2 (1)	-	-	2 (1)	6 (1)			-
Endosulfan II	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	-	-	-	-	-
	spring	-	-	-	-	-	-	-	4 (1)	10 (1)			-
Endosulfan sulfate	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	-	-	-	-	-
	spring	8 (1)	4 (1)	-	-	4 (1)	-	8 (1)	-	-			-
Heptachloepoxide	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	-	-	-	-	-
	spring	-	-	1 (1)	3 (1)	-	1 (1)	1 (1)	-	-			-

Table 5
Data Summary - 5

Parameter		Humber River									Don River		Mimico
		Main Stem Humber					Cook Creek	West Humber	Black Creek		Taylor Creek	Don River	Mimico Creek
		10	9	7	6	3	12	8	11	5	1	2	4
(c) Sample Range (and Number of Valid Samples) of Pesticides and Organic Compound Values in Annex 1 (cont)													
Heptachlor	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	1 (1)	-	-	-	-
	spring	-	-	1 (1)	-	-	1 (1)	-	-	-			-
Oxychlordane	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	-	-	-	-	-
	spring	-	-	2 (1)	2 (1)	-	-	-	-	2 (1)			3 (1)
OP-DDT	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	10 (1)	-	-	-	-		-	-	-	-	-	-
	spring	-	-	-	-	-	-	-	-	-			-
PCB (total)	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	40 (1)	-	40 (1)		-	30 (1)	-	25 - 390 (2)	25 - 110 (4)	100 (1)
	spring	25 (1)	190 (1)	25 - 255 (4)	55 - 55 (2)	25 - 205 (3)	45 - 55 (3)	25 (1)	20 - 65 (4)	25 - 285 (3)			25 - 145 (6)
DDE	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	2 (2)	-	-	-	2 (1)
	spring	-	-	-	-	1 - 3 (2)	2 (1)	1 (1)	2 (1)	-			1 (1)
PP-DDT	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	25 (1)	-	-	-	-		-	-	-	-	-	-
	spring	-	-	-	-	5 (1)	-	-	-	-			-
2,4,5-Trichlorophenoxyacetic acid	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	-	-	-	-	-
	spring	-	-	-	-	-	-	-	-	-			-

Table 5
Data Summary - 6

Parameter		Humber River: Main Stem Humber 10	9	7	6	3	Cook Creek 12	West Humber 8	Black Creek 11	5	Don River: Taylor Creek 1	Don River 2	Mimico: Mimico Creek 4
(c) Sample Range (and Number of Valid Samples) of Pesticides and Organic Compound Values in Annex 1 (cont)													
2,4-Dichloropheoxyacetic acid	dry	-	-	-	-	-		-	230 (1)	-	-	470	-
	wet	-	220 (1)	220 - 340 (4)	190 - 330 (3)	350 - 380 (2)		220 - 680 (3)	210 - 440 (4)	-	200 - 425 (3)	380 (1)	190 (1)
	spring	-	-	-	-	100 (1)	-	580 (1)	-	470 (1)			-
2,4D-Propionic acid	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		260 (1)	-	-	430 (1)	-	-
	spring	-	-	-	-	-	360 (1)	-	310 - 320 (2)	400 (1)			-
Dicamba	dry	-	-	-	-	-		-	-	-	-	-	200
	wet	-	-	-	-	-		120 (1)	-	-	-	-	-
	spring	-	-	-	-	-	-	-	120 - 160 (2)	160 (1)			260 (1)
Picloram	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	170 (1)	-	-		-	-	-	-	-	-
	spring	-	-	-	-	-	-	-	-	-			-
Silvex	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	120 (1)	-	-	50 - 70 (2)		-	50 (2)	70 (1)	80 (1)	170 (1)	-
	spring	-	-	-	-	-	90 (1)	-	100 (1)	110 (1)			-

Table 5
Data Summary - 7

Parameter		Humber River									Don River		Mimico
		Main Stem Humber					Cook Creek	West Humber	Black Creek		Taylor Creek	Don River	Mimico Creek
		10	9	7	6	3	12	8	11	5	1	2	4
(c) Sample Range (and Number of Valid Samples) of Pesticides and Organic Compound Values in Annex 1 (cont)													
Hexachlorobenzene	dry	-	1 (1)	-	-	-		-	-	-	1 (1)	3 (1)	1
	wet	-	1 (1)	1 (1)	-	-		2 - 3 (2)	2 - 14 (2)	1 - 3 (2)	1 - 3 (4)	2 - 28 (5)	2 - 5 (3)
	spring	-	-	1 (2)	1 (3)	1 - 4 (5)	1 - 6 (5)	1 (1)	1 - 3 (9)	1 - 8 (7)			2 - 29 (11)
2,3,5,6-Tetrachlorophenol	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	-	-	-	-	-
	spring	-	-	-	-	-	50 (1)	-	-	70 (1)			70 - 180 (3)
2,4,5-Trichlorophenol	dry	-	-	-	-	-		-	-	-	-	-	-
	wet	-	-	-	-	-		-	-	-	-	-	-
	spring	-	-	-	-	-	50 (1)	-	-	-			-
Pentachlorophenol	dry	-	-	-	-	-		-	-	-	-	100 (1)	210 - 400 (2)
	wet	-	50 - 80 (3)	-	100 (1)	-		80 (1)	140 - 225 (2)	210 - 530 (2)	70 (1)	-	80 - 340 (3)
	spring	-	50 - 260 (3)	70 - 180 (3)	50 - 200 (5)	60 - 320 (5)	90 - 600 (15)	170 (1)	60 - 880 (13)	5 - 880 (15)			90 - 2200 (18)

+ Number of samples used to calculate means are listed in Annex 1

* One or more values reported by the laboratory as "actual result is less than the reported value" were used to calculate this number. Consequently, this mean is an overestimate.

**Geometric mean.

- Not detected.

sites. Arranging the sites by degree of urban development would result in a similar ordering within each group because urbanization is greater in the lower reaches of the river systems.

Note that many of the inorganic parameter means shown in Table 5 were calculated using one or more values that were higher than the true value for the parameter. This occurred when the material was present in the sample at a concentration below the detection limit of the analytical technique. In these instances, the laboratory reported the detection limit as the value for the parameter along with a note that the true value was actually less than that reported. Consequently, those parameter means in Table 5 that are accompanied by an asterisk are probably overestimates.

Most of the pesticides and organic compounds were detected infrequently during TAWMS 82, so means calculated for these parameters would be misleadingly high. Instead of the mean, the range of detected values is reported in Table 5 for the pesticides and organic compounds.

BOD_5

Mean BOD_5 was generally higher during wet events than during dry events. The highest mean BOD_5 values were found for the Don River, Black Creek, and Mimico Creek. BOD_5 was not measured during Spring Runoff.

DOC

Mean dissolved organic carbon (DOC) was highest at Site 8, Site 6 and Site 7. A source of DOC from phytoplankton in Claireville Reservoir would account for this. DOC was measured only during Spring Runoff.

Total Ammonium

In Black Creek, the wet events exhibited the highest mean total ammonium values. In the Humber and Don rivers, however, mean total ammonium was often highest during dry weather. This suggests that

organic matter decomposing during dry weather is an important source of ammonium in the Don and Humber rivers but that in Black Creek significant amounts of ammonium are added by storm runoff. There is a combined sewer overflow discharging into Black Creek between Sites 5 and 11 that might account for part of this addition. Highest mean total ammonium values were determined for the Black Creek, Don River, and Mimico Creek sites.

pH

Mean pH is consistently highest during the dry events and lowest during Spring Runoff. The pH of an uncontaminated raindrop in equilibrium with atmospheric carbon dioxide is about 5.6. This is much lower than the dry weather pH of surface water in the Toronto area, so it is not surprising that the mean pH of these rivers was lower during wet events and Spring Runoff.

Phosphorus

At most sites, mean total phosphorus was highest during Spring Runoff and lowest during the dry events. The tendency was similar for filtered reactive phosphates, although for this parameter there were more instances when the wet event mean was greater than the Spring Runoff mean than there were for total phosphorus. Results from Black Creek were different for both parameters. Mean filtered reactive phosphate was highest during dry weather in Black Creek and mean total phosphorus was highest during the wet events. Highest mean values usually were found at the Cook Creek, Black Creek, Don River, and Mimico Creek sites for both parameters, although fairly high filtered reactive phosphate values were determined for Sites 7 and 9 on the Humber River during Spring Runoff.

Total Solids

Residue filtrate (RSF, or total dissolved solids) means were usually highest during Spring Runoff and lowest during the wet events. At most sites, dry weather mean RSF was higher than wet event mean RSF, suggesting that groundwater or point sources are important

contributors of RSF and that storm runoff dilutes total dissolved solids. Highest mean RSF values were found for Black Creek, Cook Creek, Don River, and Mimico Creek.

In contrast, residue particulate (RSP, or total suspended solids) means were usually highest during Spring Runoff and lowest during the dry events. Black Creek mean RSP values were highest for the wet events rather than for Spring Runoff. At all sites, higher RSP values were associated with higher stream flows. The highest RSP means were found for the upstream Humber River sites, suggesting that erosion is an important source of suspended solids.

Bacteria

Fecal coliforms and streptococci geometric means were almost always highest for the wet events and lowest for the dry events. For Black and Mimico creeks, however, fecal coliform means were lower for Spring Runoff rather than for the dry events, suggesting the presence of a dry-weather source of fecal bacteria at these sites. Highest mean fecal coliform and streptococci values were found for the Don River mouth, Black Creek, and Mimico Creek sites.

Trace Inorganics

At most sites, the highest mean value for each of the trace inorganic parameters was for the Spring Runoff and the lowest was for the dry events. Most of the exceptions to this generalization occurred for Black Creek, where highest mean values were found for wet events. The highest mean trace inorganic values were observed at the following sites

- cadmium - Black Creek (5), Cook Creek, Mimico Creek

- chromium - Cook Creek, Mimico Creek, Black Creek (5)

- copper - Site 9, Taylor Creek, Don River

- mercury - Black Creek, Don River, Taylor Creek

- mercury - Black Creek, Don River, Taylor Creek

- nickel - Don River, Cook Creek, Mimico Creek

- lead - Back Creek, Taylor Creek, Don River

- zinc - Don River, Cook Creek, Black Creek.

<u>Pesticides and Organic Compounds</u>

The most frequently detected organic compounds and the sites with the highest mean values were

- α-BHC hexachlorocyclohexane - Black Creek, Taylor Creek, Mimico Creek

- β-BHC hexachlorocyclohexane - Taylor Creek, Don River, Mimico Creek

- γ-BHC hexachlorocyclohexane - Taylor Creek, Mimico Creek, Black Creek (11)

- PCB, total - Taylor Creek, Black Creek (5), Site 7

- 2,4-D - Site 8, Black Creek, Taylor Creek

- hexachlorobenzene - Mimico Creek, Don River, Black Creek (11)

- pentachlorphenol - Mimico Creek, Black Creek, Cook Creek.

3.3 - Water Quality Objective Exceedances

Table 6 and Figure 12 summarize water quality objective exceedances and average exceedance factors for the TAWMS 82 water quality data. Exceedances are discussed below for each parameter. The applicable Objective or guideline follows the parameter name.

Fecal Coliforms
(100/100 mL; MOE, 1978)

Bacterial water quality indicators are groups of bacteria whose densities in water can be related quantitatively to the presence of sewage or fecal matter and, therefore, to the risk of contracting a disease from the pathogens contained therein (MOE, 1978). The fecal coliforms are one of these indicators. A potential health hazard exists if the fecal coliform geometric mean density for a series of water samples exceeds 100/100 mL. A series of at least 10 samples per month per sampling location is recommended, but an increased sampling frequency is required when the water is used for recreational purposes or when the water is subjected to contamination or discharge.

Ninety percent (55) of the fecal coliform geometric means exceeded the Objective.* The Objective was exceeded at every site during Spring Runoff and at every site during the wet events when one or more valid samples were obtained. The Objective was exceeded at most (16 of 22) sites during the dry events. Average exceedance factors were higher during wet events than during dry events at all sites except the mouth of the Don River. Spring Runoff average exceedance factors were generally intermediate between those for the wet and dry events, except at Sites 4 and 5, where Spring Runoff samples yielded the lowest average exceedance factors.

*Caution: All dry events and the Wet Event 2 exceedances and exceedance factors are based on single values, not on geometric means of a series of samples.

TABLE 6

AVERAGE EXCEEDANCE FACTORS[+] FOR ALL EVENTS

Dry Event 1

		Humber River								Don River		Mimico
	Objective or	Main Stem Humber					West Humber	Black Creek		Taylor Creek	Don River	Mimico Creek
Parameter	Guideline	10	9	7	6	3	8	11	5	1	2	4
Fecal coliforms	100/100 mL*		1.1	1.2	3.0	5.2	1.4	15.0	14.0	41.0	690.0	7.4
BOD_5	10 mg/L**										1.2	
NH_3 (un-ionized)	0.02 mg/L*	-							-		1.7	
Total P	0.030 mg/L*							7.5	15.0	1.5	5.6	
Residue particulate	25 mg/L**											1.4
Cadmium	0.0002 mg/L*											
Chromium	0.1 mg/L*											
Copper	0.005 mg/L*	1.6	1.0	1.2	1.0	1.4	1.0	2.2	4.0	3.0	2.4	3.4
Mercury	0.0002 mg/L*	-	-	-	-	-	-	-	-	-	-	-
Nickel	0.025 mg/L*											
Lead	0.025 mg/L*										2.0	
Zinc	0.030 mg/L*								1.3		2.3	

[+] Number of samples used to calculate exceedance factors are listed in Annex 1

* Objective for the protection of aquatic life established by MOE (1978) with two exceptions:
   (1) There is no firm objective for total P; this value given for total P is a general guideline.
   (2) The objective for fecal coliforms is for the protection of public health.

**The BOD_5 value is an indicator of organic pollution, not a water quality Objective. The residue particulate value is a guideline for the protection of freshwater life. Both are cited in McNeely et al (1979).

\- No valid samples.

Table 6
Average Exceedance Factors[+] for All Events - 2

Dry Event 2

		Humber River								Don River		Mimico
		Main Stem Humber					West Humber	Black Creek		Taylor Creek	Don River	Mimico Creek
Parameter	Objective or Guideline	10	9	7	6	3	8	11	5	1	2	4
Fecal coliforms	100/100 mL*					1.4		4.2	43.0	11.0	67.0	2.2
BOD_5	10 mg/L**						-					
NH_3 (un-ionized)	0.02 mg/L*											
Total P	0.030 mg/L*							3.8	3.0	1.1	11.0	
Residue particulate	25 mg/L**											
Cadmium	0.0002 mg/L*	2.0	1.5	1.5	1.5		2.0	2.5	2.5	3.0	2.0	1.5
Chromium	0.1 mg/L*											
Copper	0.005 mg/L*	1.6	1.4	1.2	1.4	1.6	2.2	3.2	3.4	2.6	2.8	2.4
Mercury	0.0002 mg/L*									-		
Nickel	0.025 mg/L*											
Lead	0.025 mg/L*											
Zinc	0.030 mg/L*				1.4			1.0	1.6		1.2	1.1
γ-BHC (Lindane)	10 ng/L*	-			-	-				-	1.2	

+ Number of samples used to calculate exceedance factors are listed in Annex 1
* Objective for the protection of aquatic life established by MOE (1978) with two exceptions:
(1) There is no firm objective for total P; this value given for total P is a general guideline.
(2) The objective for fecal coliforms is for the protection of public health.
**The BOD_5 value is an indicator of organic pollution, not a water quality Objective. The residue particulate value is a guideline for the protection of freshwater life. Both are cited in McNeely et al (1979).
- No valid samples.

Table 6
Average Exceedance Factors[+] for All Events - 3

Wet Event 1

Parameter	Objective or Guideline	Humber River: Main Stem Humber 10	9	7	6	3	West Humber 8	Black Creek 11	5	Don River: Taylor Creek 1	Don River 2	Mimico: Mimico Creek 4
Fecal coliforms	100/100 mL*	1.5	14.0	12.0	16.0	9.0	25.0	27.0	400.0	79.0	120.0	57.0
BOD_5	10 mg/L**						1.1	1.6	2.7	1.3	1.1	2.4
NH_3 (un-ionized)	0.02 mg/L*							1.2	1.1		1.9	
Total P	0.030 mg/L*	1.1	11.0	1.2	1.5		2.1	19.0	35.0	7.9	14.0	21.0
Residue particulate	25 mg/L**		2.6					11.0	7.2	2.6	2.4	2.7
Cadmium	0.0002 mg/L*	3.0	1.2		1.7	3.2	1.0	3.9	5.8	3.5	3.3	3.5
Chromium	0.1 mg/L*											
Copper	0.005 mg/L*	1.4	1.7	1.7	1.7	2.1	2.0	6.4	7.8	4.3	11.0	4.2
Mercury	0.0002 mg/L*											
Nickel	0.025 mg/L*										2.1	2.2
Lead	0.025 mg/L*		1.0					5.9	5.5	1.4	1.2	1.5
Zinc	0.030 mg/L*	1.5	1.5		1.3		1.3	6.2	5.5	2.2	8.9	2.4
γ-BHC (Lindane)	10 ng/L*			-	-	-			-	4.7	1.0	-
PCB (total)	1 ng/L*	-	-	-	-		-	-	-	25.0	50.0	100.0

[+] Number of samples used to calculate exceedance factors are listed in Annex 1

* Objective for the protection of aquatic life established by MOE (1978) with two exceptions:
(1) There is no firm objective for total P; this value given for total P is a general guideline.
(2) The objective for fecal coliforms is for the protection of public health.

**The BOD_5 value is an indicator of organic pollution, not a water quality Objective. The residue particulate value is a guideline for the protection of freshwater life. Both are cited in McNeely et al (1979).

\- No valid samples.

Table 6
Average Exceedance Factors[+] for All Events - 4

Wet Event 2

Parameter	Objective or Guideline	Humber River: Main Stem Humber 10	9	7	6	3	West Humber 8	Black Creek 11	5	Don River: Taylor Creek 1	Don River 2	Mimico: Mimico Creek 4
Fecal coliforms	100/100 mL*	5.0	1.7	4.5	5.3	10.0	6.3	-	-	-	-	2.7
BOD_5	10 mg/L**											
NH_3 (un-ionized)	0.02 mg/L*				-							
Total P	0.030 mg/L*	9.7	11.0	12.0	11.0	11.0	7.3	7.2	6.3	6.0	12.0	8.9
Residue particulate	25 mg/L**	8.9	9.3	11.0	9.2	9.8	4.5	3.3	3.1	4.0	7.7	4.8
Cadmium	0.0002 mg/L*	1.3	1.2	1.8	1.6	2.4	1.2	1.6	2.7	2.1	3.2	2.3
Chromium	0.1 mg/L*											
Copper	0.005 mg/L*	2.8	2.7	3.2	2.7	9.2	2.8	3.3	3.3	4.8	4.3	3.3
Mercury	0.0002 mg/L*											
Nickel	0.025 mg/L*											
Lead	0.025 mg/L*					1.3		1.8	2.0	2.7	1.6	1.1
Zinc	0.030 mg/L*	1.0	1.2	1.5	1.3	1.6	1.2	2.0	2.1	2.3	2.5	1.9
γ-BHC (Lindane)	10 ng/L*		1.0					1.5		1.4		
PCB (total)	1 ng/L*	-	-	-	-	-	-	-	-	390.0	100.0	-

[+] Number of samples used to calculate exceedance factors are listed in Annex 1.

* Objective for the protection of aquatic life established by MOE (1978) with two exceptions:
(1) There is no firm objective for total P; this value given for total P is a general guideline.
(2) The objective for fecal coliforms is for the protection of public health.

**The BOD_5 value is an indicator of organic pollution, not a water quality Objective. The residue particulate value is a guideline for the protection of freshwater life. Both are cited in McNeely et al (1979).

\- No valid samples.

Table 6
Average Exceedance Factors[+] for All Events - 5

Wet Event 3

Parameter	Objective or Guideline	Humber River: Main Stem Humber 10	9	7	6	3	West Humber 8	Black Creek 11	5	Don River: Taylor Creek 1	Don River 2	Mimico: Mimico Creek 4
Fecal coliforms	100/100 mL*	7.3	7.1	8.4	8.1	12.0	8.2	46.0	150.0	140.0	280.0	38.0
BOD_5	10 mg/L**											
NH_3 (un-ionized)	0.02 mg/L*	5.6										
Total P	0.030 mg/L*	4.3	4.2	5.0	5.4	5.4	3.6	5.5	8.1	6.5	15.0	9.6
Residue particulate	25 mg/L**	4.0	4.1	4.0	5.0	2.6	3.1	2.6	2.7	2.5	8.1	4.6
Cadmium	0.0002 mg/L*	1.6	1.3	1.3	1.3	1.0	1.2	2.5	4.0	2.0	3.5	3.0
Chromium	0.1 mg/L*											
Copper	0.005 mg/L*	2.7	11.0	3.7	3.9	3.5	3.1	3.6	5.2	24.0	6.1	4.9
Mercury	0.0002 mg/L*										-	
Nickel	0.025 mg/L*			1.4								
Lead	0.025 mg/L*							3.2	2.7	2.1	3.1	1.4
Zinc	0.030 mg/L*		1.4	1.0	1.2	1.2		2.8	3.1	3.5	4.3	4.2
γ-BHC (Lindane)	10 ng/L*							1.3		1.6		1.8
Dieldrin	1 ng/L*	-	2.0	-	-	-	-	-	6.0	-	-	2.0
PCB (total)	1 ng/L*	-	-	40.0	-	40.0	-	30.0	-	-	-	-
DDT (+ metabolites)	3 ng/L*	8.3	-	-	-	-	-	-	-	-	-	-

[+] Number of samples used to calculate exceedance factors are listed in Annex 1.

* Objective for the protection of aquatic life established by MOE (1978) with two exceptions:
(1) There is no firm objective for total P; this value given for total P is a general guideline.
(2) The objective for fecal coliforms is for the protection of public health.

**The BOD_5 value is an indicator of organic pollution, not a water quality Objective. The residue particulate value is a guideline for the protection of freshwater life. Both are cited in McNeely et al (1979).

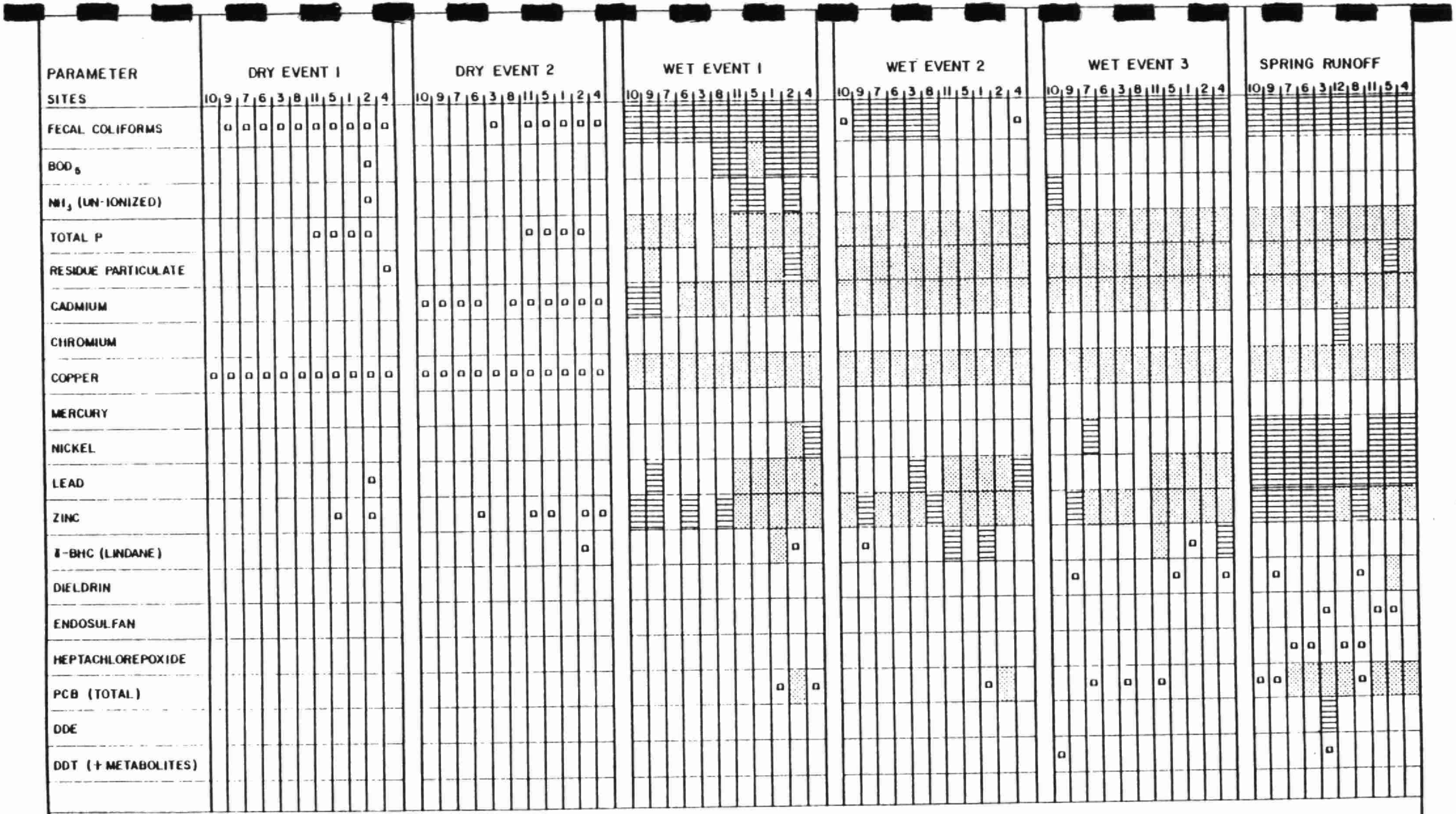
\- No valid samples.

Table 6
Average Exceedance Factors[+] for All Events - 6

Spring Runoff

Parameter	Objective or Guideline	Humber River									Mimico
		Main Stem Humber					Cook Creek	West Humber	Black Creek		Mimico Creek
		10	9	7	6	3	12	8	11	5	4
Fecal coliforms	100/100 mL*	1.0	1.3	1.1	1.5	2.8	6.0	1.4	5.7	13.0	1.3
BOD_5	10 mg/L**										
NH_3 (un-ionized)	0.02 mg/L*										
Total P	0.030 mg/L*	7.6	10.0	10.0	8.5	8.5	19.0	5.8	6.5	8.3	9.5
Residue particulate	25 mg/L**	7.4	7.1	6.7	7.4	7.4	3.6	6.4	4.7	4.1	8.0
Cadmium	0.0002 mg/L*	3.3	3.3	3.2	4.0	4.3	4.3	3.4	4.1	4.3	4.4
Chromium	0.1 mg/L*						3.0				
Copper	0.005 mg/L*	3.5	94.0	3.4	3.7	4.0	6.5	3.2	4.9	5.3	4.8
Nickel	0.025 mg/L*	1.2	1.2	1.1	1.2	1.1	1.2		1.1	1.1	1.3
Lead	0.025 mg/L*	1.3	2.4	1.9	1.9	2.9	4.6	2.0	4.2	3.5	4.0
Zinc	0.030 mg/L*	1.8	2.5	2.5	2.1	2.7	4.0	1.6	2.7	2.3	3.0
γ-BHC (Lindane)	10 ng/L*	-		-	-				-		
Dieldrin	1 ng/L*	-	4.0	-	-	-	-	4.0	-	4.0	-
Endosulfan I	3 ng/L*	-	-	-	-	3.3	-	-	3.3	6.7	-
Heptachlorepoxide	1 ng/L*	-	-	2.0	4.0	-	2.0	2.0	-	-	-
PCB (total)	1 ng/L*	25.0	190.0	91.0	55.0	137.0	48.0	25.0	43.0	187.0	70.0
DDE	3 ng/L*	-	-	-	-	1.0				-	
DDT (+ metabolites)	3 ng/L*	-	-	-	-	1.7	-	-	-	-	-

[+] Number of samples used to calculate exceedance factors are listed in Annex 1.
* Objective for the protection of aquatic life established by MOE (1978) with two exceptions:
(1) There is no firm objective for total P; this value given for total P is a general guideline.
(2) The objective for fecal coliforms is for the protection of public health.
**The BOD_5 value is an indicator of organic pollution, not a water quality Objective. The residue particulate guideline for the protection of freshwater life. Both are cited in McNeely et al (1979).
\- No valid samples.



LEGEND

> 50% OF SAMPLES EXCEEDED OBJECTIVE OR GUIDELINE

≤ 50% OF SAMPLES EXCEEDED OBJECTIVE OR GUIDELINE

THE ONE VALID SAMPLE EXCEEDED OBJECTIVE OR GUIDELINE

SAMPLE WITHIN OBJECTIVE OR GUIDELINE OR NO VALID SAMPLE OBTAINED

FIG 12

ONTARIO MINISTRY OF ENVIRONMENT

TORONTO AREA WATERSHED MANAGEMENT STUDY · TAWMS 82

OCCURRENCE OF EXEEDANCES FOR ALL EVENTS

Highest overall exceedance factors were determined for the mouth of the Don River (289), the mouth of Black Creek (124), and the mouth of Taylor Creek (68).

Fecal coliform bacteria are normally associated with the intestinal tracts of warm-blooded animals (McNeely et al, 1979). High fecal coliform counts thus indicate pollution by enteric wastes and, hence, indicate the possible presence of pathogens. The frequent exceedance of the fecal coliform Objective reveals frequent pollution by enteric wastes in the TAWMS study area, particularly during wet events. Other studies of microbiological characteristics of urban storm water runoff in central Ontario (Environment Canada and MOE, 1978) have shown that fecal pollution in separate storm sewer systems is predominantly of nonhuman origin. Fecal pollution of Toronto watersheds might be from surface runoff through storm sewers as well as from domestic wastes through combined sewers. Indeed, the MOE has identified a number of dry weather storm sewer flows that contain elevated levels of fecal coliforms, with the suspected cause being illegal sanitary or industrial sewer connections to the storm sewers (MOE, 1983b).

BOD_5
(10 mg/L; McNeely et al, 1979)

The 5-d biochemical oxygen demand (BOD_5) of a water sample is the amount of oxygen needed to oxidize the organic matter in the sample to a stable inorganic form by aerobic microbial decomposition (McNeeley et al, 1979). BOD_5 is an indicator of pollution by organic material. Waters with BOD_5 levels less than 4 mg/L are considered reasonably clean and waters with BOD_5 levels greater than 10 mg/L are considered polluted by degradable organic material. MOE does not have an Objective for BOD_5.

BOD_5 was measured routinely in the fall 1982 water samples but rarely in the spring 1983 samples. Only 5 percent (16) of the fall BOD_5 values exceeded the guideline. All but one of the exceedances occurred during Wet Event 1. Over half (9) of the exceedances

occurred on Black Creek and three occurred at the mouth of Mimico Creek. Most (5 of 7) of the average exceedance factors were less than 2.

During Wet Event 1, the waters of Black and Mimico creeks exhibited BOD_5 levels greater than the guideline, indicating that these waters were polluted by organic material. BOD_5 levels tended to be higher on the rising limb of the hydrograph at these sites.

NH_3
(0.02 mg/L as N; MOE, 1978)

The un-ionized ammonia Objective is based on ammonia's toxicity to aquatic organisms. Ammonia values reported by the MOE laboratory were for total ammonium (NH_4^+ and NH_3). These values were converted to un-ionized ammonia (NH_3) using the table on page 32 of MOE (1978), which gives estimates of the un-ionized fraction based on temperature and pH. The conversions were done using values of pH measured in the laboratory and a temperature value of 20°C. At a given pH, the percentage of un-ionized ammonia in water sample is lower at lower temperatures, so the calculated values of un-ionized ammonia are probably overestimates of the amounts actually present in the rivers where temperatures were lower.

Two percent (7) of the un-ionized ammonia values exceeded the Objective. Most (5 of 7) of the exceedances occurred during Wet Event 1. Of these, 3 occurred on Black Creek and 2 occurred at the mouth of the Don River. All but 1 of the 5 average exceedance factors were 2 or less. There were no exceedances during Spring Runoff.

BOD_5 exceedances were also frequent at the times and places of ammonia exceedances, suggesting that the ammonia was associated with organic material and sanitary sewage, likely from combined sewer overflows.

The highest average exceedance factor for ammonia, 5.6, occurred at the rural site (10) in the Humber watershed. As the BOD_5 level was

not high at the time of this ammonia exceedance, this ammonia might be attributable to inorganic fertilizers.

Total Phosphorus
(0.030 mg/L; MOE, 1978)

Current scientific evidence is insufficient to develop a firm Objective for total phosphorus (MOE, 1978). Accordingly, only general guidelines for phosphorus have been suggested. Excessive plant growth in rivers and streams should be eliminated at a total phosphorus concentration below 0.030 mg/L.

Ninety-two percent (551) of the total phosphorus values exceeded the general guideline. The fractions of wet event (0.94) and Spring Runoff (0.95) values exceeding the guideline were much larger than the fraction of dry event values exceeding the guideline (0.36).

Exceedances were observed during all five events at four sites--both Black Creek sites and both Don River sites. Exceedance factors were generally higher during wet events and Spring Runoff than during dry events. Highest overall average exceedance factors were determined for the mouth of Black Creek (13), the mouth of Mimico Creek (12; wet events and Spring Runoff only), and the mouth of the Don River (12).

Dry event conditions are more likely to have greater overall influence on plant growth than are wet event conditions because dry events last longer and their conditions are generally more conducive to plant growth. During the dry events, exceedances of the phosphorus guideline occurred only on Black Creek, Taylor Creek and the Don River.

Residue Particulate
(25 mg/L; McNeely et al, 1979)

MOE does not have an Objective for residue particulate. A guideline for the protection of freshwater life of 25 mg/L is given in McNeely et al (1979).

Sixty-eight percent (403) of the residue particulate values exceeded the guideline. All exceedances but one occurred during the wet events. The highest overall exceedance factors were determined for four Humber River sites as follows

- Sites 6 and 7 (7.2)
- Site 10 (6.8)
- Site 3 (6.6).

These high overall exceedance factors resulted from particularly high average exceedance factors during Wet Event 2. Wet Event 2 was preceded by two days of intermittent rain. The particularly high Wet Event 2 average exceedance factors for these sites could have resulted from erosion of soil particles from open areas and stream banks exacerbated by several consecutive days of wet weather.

Cadmium
(0.0002 mg/L; MOE, 1978)

The Objective for cadmium was established to protect aquatic life. Eighty-nine percent (408) of the valid cadmium values exceeded the Objective. The fractions of wet event (0.88) and Spring Runoff (0.92) values exceeding the Objective were larger than the fraction of dry event values exceeding the Objective (0.48). Exceedances occurred at 10 of the 11 sites during Dry Event 2, and exceedance factors for most (7) of these sites during this event were greater than or about the same as exceedance factors for the same sites during wet events. Highest overall exceedance factors were determined for Cook Creek (4.3--Spring Runoff only), the mouth of Black Creek (3.9), and the mouth of the Don River (3.0). Overall exceedance factors were highest during Spring Runoff at all sites except Site 5.

Chromium
(0.1 mg/L; MOE, 1978)

The Objective for chromium was established to protect aquatic life.

The only exceedances of the Objective for chromium occurred at Site 12 on Cook Creek during Spring Runoff. The average exceedance factor was 3.0.

Copper
(0.005 mg/L; MOE, 1978)

The Objective for copper was established to protect aquatic life.

The Objective for copper was exceeded at all sites during all events. For each site, Spring Runoff and wet event exceedance factors were generally higher than dry event exceedance factors.

Highest overall exceedance factors for copper were determined for Taylor Creek (7.2), Cook Creek (6.5--Spring Runoff only), the mouth of the Don River (5.3), and the mouth of Black Creek (4.8). Site 9 has an overall exceedance factor of 19, caused largely by one high value of 13 mg/L. This value is 100 times higher than the second-highest value, so it must be suspected.

Mercury
(0.0002 mg/L; MOE, 1978)

The Objective for mercury was established to protect aquatic life and to reduce accumulation of mercury in fish flesh that might be consumed by humans.

Only three mercury values exceeded the Objective; however, each of these values was reported by the laboratory as "unreliable: contamination suspected" and the average exceedance factors were low (1.2, 1.4).

Nickel
(0.025 mg/L; MOE, 1978)

The Objective for nickel was established to protect aquatic life.

Only 6 percent (26) of the nickel values exceeded the Objective. All nickel exceedances occurred during wet events and Spring Runoff.

Average exceedance factors for nickel were 2.2 or less. Exceedances occurred at all sites except Site 8.

Lead
(0.025 mg/L; MOE, 1978)*

The Objective for lead was established to protect aquatic life.

Twenty-five percent (101) of the lead values exceeded the Objective. All but one of the exceedances occurred during Spring Runoff or the wet events. Highest overall exceedance factors were determined for Cook Creek (4.6--Spring Runoff only), Site 11 on Black Creek (3.8), the mouth of Black Creek (3.4), the mouth of Taylor Creek (2.1), and the mouth of Mimico Creek (2.0).

Zinc
(0.030 mg/L; MOE, 1978)

The Objective for zinc was established to protect aquatic life.

Fifty-one percent (211) of the zinc values exceeded the Objective. The fraction of wet event values exceeding the Objective (0.66) was larger than the fraction of Spring Runoff (0.48) or dry event values exceeding the Objective (0.32). The Objective was exceeded during all events at the mouths of the Don River and Black Creek. Highest overall exceedance factors were determined for Cook Creek (4.0--Spring Runoff only), the mouth of the Don River (3.8), Site 11 on Black Creek (2.9), the mouth of Taylor Creek (2.7), and the mouth of Black Creek (2.6).

Pesticides and Other
Organic Compounds

Lindane (γ-BHC) is an organochlorine compound used as an insecticide and rodenticide (McNeely et al, 1979). Its toxicity is related to

*At alkalinities greater than 80 mg/L as $CaCO_3$.

its disruption of oxygen uptake. It can also accumulate in the fatty tissues of animals, so the Objective was established to protect aquatic life and to inhibit its accumulation in fish flesh that might be consumed by humans (MOE, 1978).

Fifteen percent (11) of the valid γ-BHC values exceeded the Objective of 10 ng/L. All the exceedances occurred during the wet events. More than half (6) of the exceedances occurred in the Don River watershed--4 at the mouth of Taylor Creek and 2 at the mouth of Don River. Several (3) exceedances occurred at Site 11 on Black Creek. All exceedance factors but one were less than 2.

All values for aldrin, chlordane, methoxychlor, 2,4-D, dicamba, and silvex were less than their Objectives or guidelines. The Objective for DDE was exceeded only once, during Spring Runoff at Site 3.

For dieldrin, endosulfan, endrin, heptachlor and heptachlorepoxide, mirex, PCB, and DDT and its metabolites, the Objective is less than the minimum measurable amount. Almost all values of each of these parameters were reported by the laboratory as the minimum measurable amount, indicating that nothing was detected. In these instances, exceedance was impossible to determine. There were a few exceptions as follows.

(1) Dieldrin exceeded the Objective three times during Wet Event 3 (Sites 4, 5 and 9) and four times during Spring Runoff (Sites 5, 8 and 9.)

(2) The endosulfan Objective was exceeded three times during Spring Runoff (Sites 3, 5 and 11).

(3) Heptachlor alone equaled the Objective for heptachlor and heptachlorepoxide at Site 11 on Black Creek during Wet Event 2. The Objective was exceeded four times during Spring Runoff, at Sites 6, 7, 8 and 12 on the Humber River.

(4) The Objective for DDT and its metabolites was exceeded once at Site 10 during Wet Event 3 and once at Site 3 during Spring Runoff.

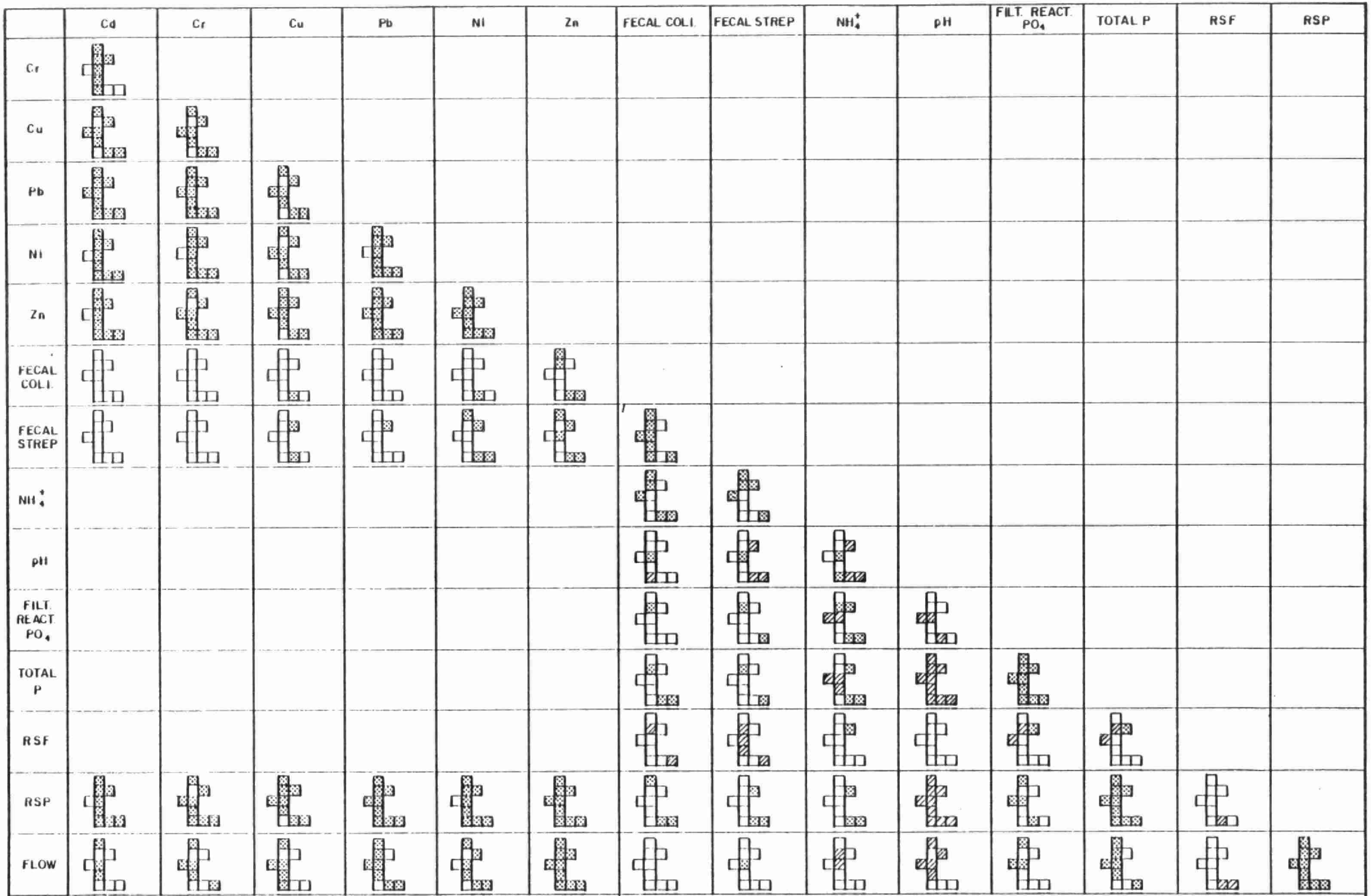
Heptachlor, heptachlorepoxide, and DDT are organochlorine compounds used as insecticides (McNeely et al, 1979). Their toxicity is related to their disruption of oxygen uptake. They can also accumulate in the fatty tissues of animals, so their Objectives were established to protect aquatic life and to inhibit their accumulation in fish flesh that might be consumed by humans or fish-consuming birds (MOE, 1978).

Polychlorinated biphenyls (PCBs) are toxic organic chemicals that are highly resistant to biological, chemical and thermal degradation (McNeely et al, 1979). They tend to accumulate in sediments and move downstream during subsequent resuspension of sediments. PCBs collect in the fatty tissues of animals, and can have long-term harmful effects on aquatic life and human health. The Objective for PCBs (1 ng/L; MOE, 1978) was established with this in mind to provide guidance for dealing with past releases or accidental losses.

Most of the PCB results were reported as the minimum detectable amount because no PCB was detected. However, the minimum detectable amount is 20 times the Objective, so it is impossible to say whether these samples exceeded the Objective. There were 38 samples that contained PCBs in detectable amounts greater than the Objective. Most (28) of these exceedances occurred during Spring Runoff. Exceedances occurred most frequently (6 times) at the mouth of Mimico Creek. During the wet events, over half (6) of the exceedances occurred at the two Don River watershed sites.

3.4 - Parameter Correlations

Figure 13 shows the Humber River water sampling sites at which significant (95% confidence level) correlations between parameters were found using all the TAWMS 82 water quality data.



SITE INDEX

* SPRING 1983, DATA ONLY; ALL OTHERS BASED ON ALL TAWMS 82 DATA.

KEY

NEGATIVE CORRELATION AT 95% CONFIDENCE LEVEL

POSITIVE CORRELATION AT 95% CONFIDENCE LEVEL

FIG. 13

ONTARIO MINISTRY OF ENVIRONMENT

TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82

CORRELATIONS BETWEEN WATER QUALITY PARAMETERS

ACRES

The trace inorganic parameters were positively correlated with each other at most sites. Copper was the trace inorganic that correlated least often with the others, particularly at Sites 3 and 9.

The bacteria were positively correlated with each other at most sites, but they were not usually correlated with other parameters. The bacteria were, however, positively correlated with total ammonium at just over half the sites, suggesting a common source.

Frequently, pH was negatively correlated with other conventional water quality parameters. This relationship occurred at all sites for pH and total phosphorus and pH and residue particulate (RSP), and at most sites for pH and flow. Flow increases are caused by precipitation or snowmelt, both of which are acidic. The parameters that were negatively correlated with pH were also generally positively correlated with flow.

RSP was positively correlated with the trace inorganic parameters and total phosphorus at virtually every site.

There were frequent positive correlations between flow and the trace inorganics and between flow and a few of the conventional water quality parameters. This correlation occurred at every site between flow and zinc and between flow and residue particulate.

3.5 - Pollutographs

Figures 14, 15 and 16 contain pollutographs for selected parameters at Sites 3, 5, 10 and 12.

At all four sites, residue particulate (RSP, or total suspended solids) and fecal coliform concentrations increased when flow increased and decreased when flow decreased.

At most of the four sites, residue filtrate (RSF, or total dissolved solids) increased when flow was low and decreased during peak flows. This suggests that dissolved solids are added during dry weather by

groundwater or point source discharges and that storm water runoff dilutes the RSF in the receiving waters. Note that this tendency does not appear in the pollutograph for Site 10, the Humber site farthest from urban influence. This suggests that the dry weather sources of RSF in the Lower Humber are largely point sources rather than groundwater.

Total ammonia and total phosphorus generally followed flow changes. At most of the sites these parameters reached peak concentrations on the rising limb of the hydrograph then declined (the classic "first flush" effect of urban runoff). The tendency was less pronounced at Site 10, the most rural of the four sites.

Dissolved organic carbon tended to be highest when flows were low, suggesting a dry weather source such as decomposition of organic matter.

The trace inorganics, cadmium, copper, and zinc, increased with increasing flow and decreased with decreasing flow.

3.6 - Subbasin Contaminant Contributions

In this section, Humber River subbasin loadings of five parameters during two of the wet events and Spring Runoff are discussed. Wet Event 3 was not included because it was sampled mainly on the falling limb of the hydrograph, which made the measured concentrations inadequate for calculating event loadings.

These subbasin event loadings are dealt with in two ways. First, the relative contributions of the subbasins to the total event loading is considered. Second, the loading per unit area of each subbasin is considered. Tables 7, 8 and 9 give the dry event flux differences and wet event and Spring Runoff loading differences on which the following discussion is based.

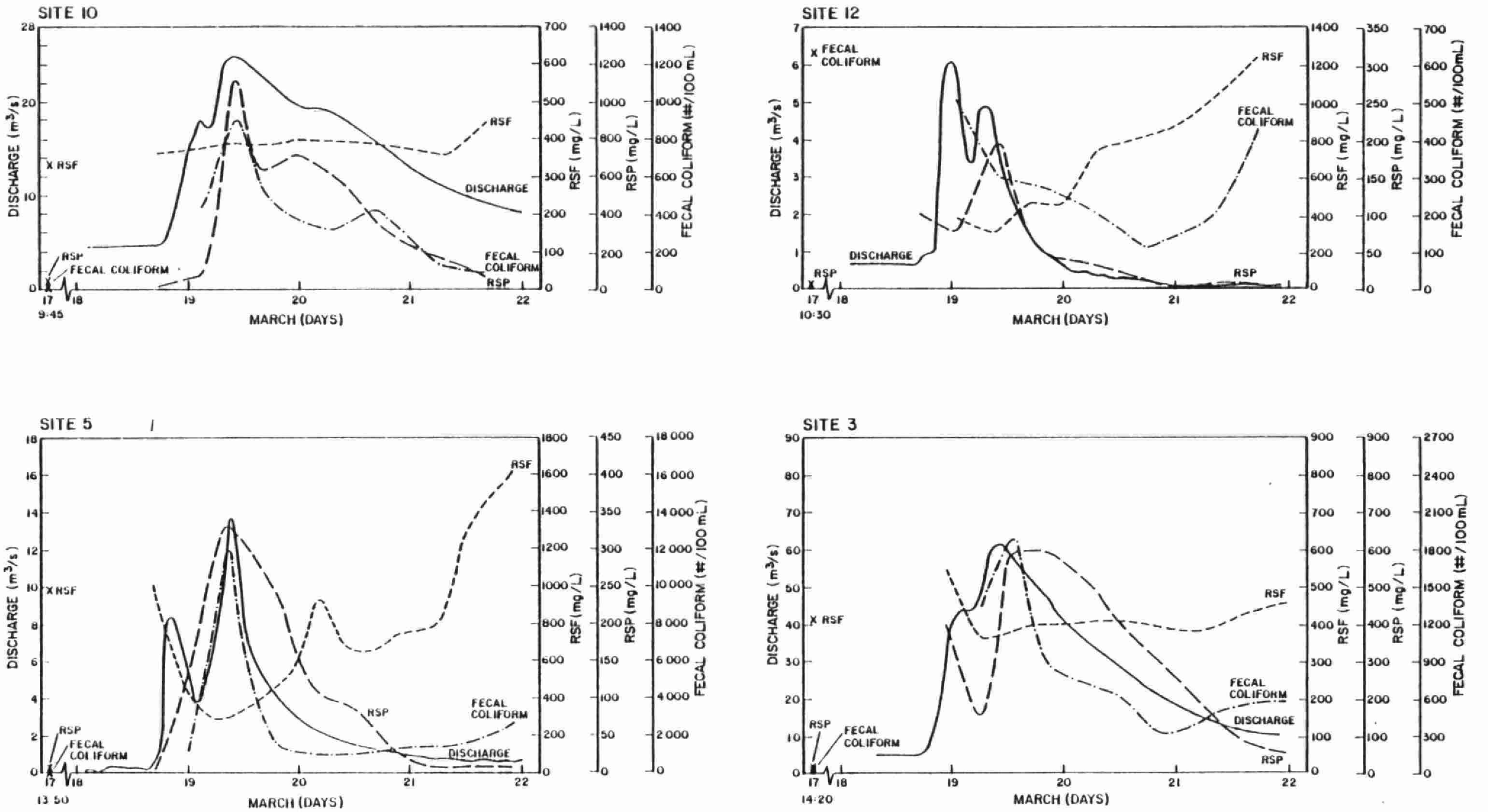


FIG 14

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TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82

POLLUTOGRAPHS FOR RESIDUE FILTRATE, RESIDUE PARTICULATE, AND FECAL COLIFORMS

ACRES

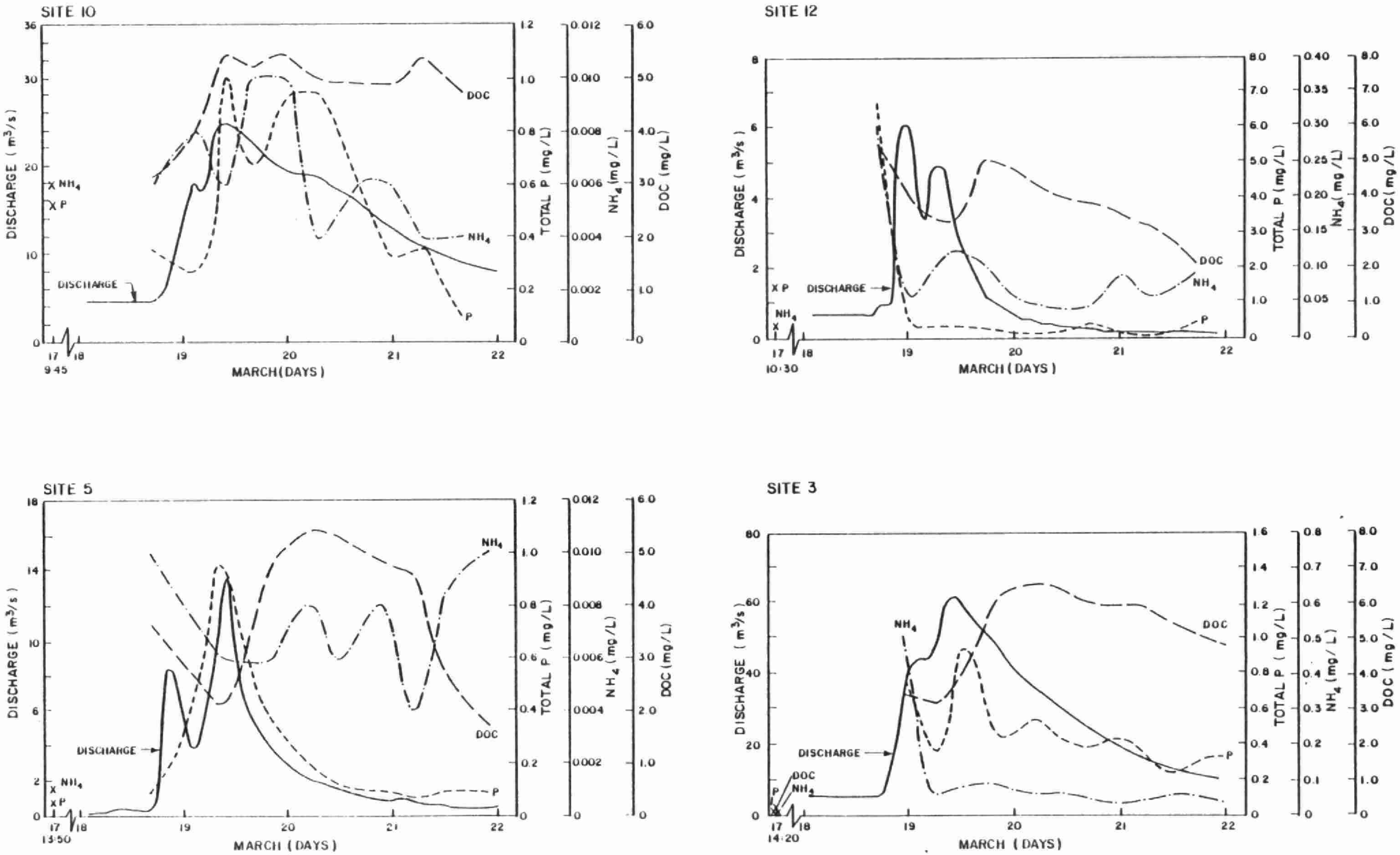

FIG. 15

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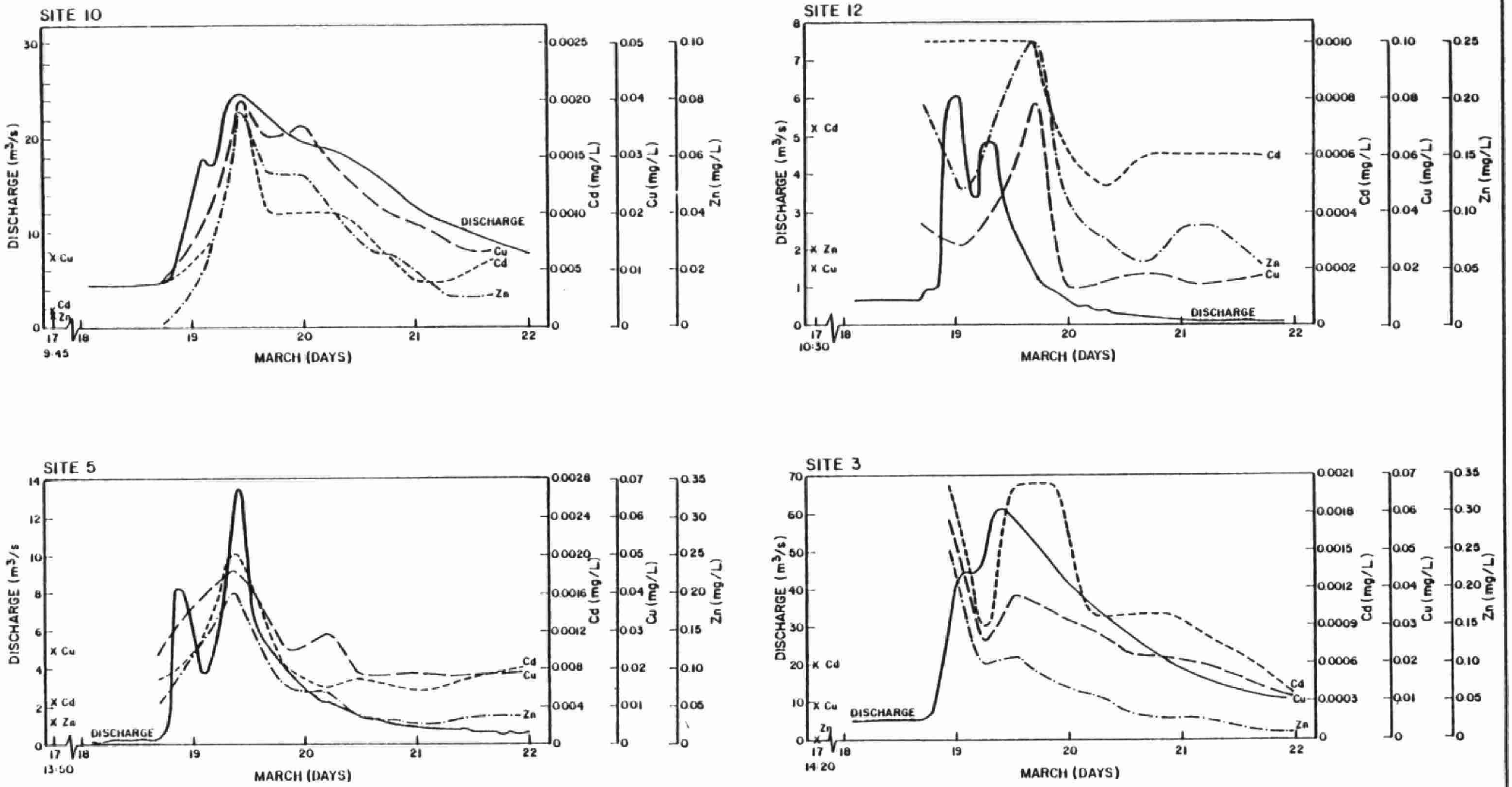
TORONTO AREA WATERSHED MANAGEMENT STUDY-TAWMS 82

ACRES

POLLUTOGRAPHS FOR TOTAL PHOSPHORUS, TOTAL AMMONIA, AND DISSOLVED ORGANIC CARBON



ONTARIO MINISTRY OF ENVIRONMENT

TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82

FIG. 16

POLLUTOGRAPHS FOR CADMIUM, COPPER, AND ZINC

TABLE 7

AVERAGE DRY EVENT FLUX DIFFERENCES FOR SIX HUMBER SUBBASINS*

Parameter	Upper Humber	West Humber	Upper Black Creek	Lower Black Creek	Mid Humber	Lower Humber
Flow (m^3/s)	1.49	1.04	0.145	0.0300	0.400	0.180
Cadmium ($\times 10^{-6}$ kg/s)	0.451	0.341	0.230	-0.180	-0.0440	-0.140
Copper ($\times 10^{-6}$ kg/s)	11.9	9.81	1.80	1.56	-3.50	3.83
Lead ($\times 10^{-6}$ kg/s)	5.20	4.50	1.40	-0.300	0.700	-1.60
Fecal coliforms ($\times 10^{-6}$ counts/s)	0.818	1.07	1.70	2.15	0.0300	4.66
NH_4 ($\times 10^{-6}$ kg/s)	16.7	25.4	10.8	-9.90	51.1	49.7

*Average of two dry events.

TABLE 8

WET EVENT LOADING DIFFERENCES
FOR SIX HUMBER SUBBASINS

Parameter		Upper Humber	West Humber	Upper Black Creek	Lower Black Creek	Mid Humber	Lower Humber
Wet Event 1							
Flow (x $10^3 m^3$)	Wet	0.918	8.24	34.0	31.0	20.2	-21.4
	Base	84.0	76.3	14.3	6.13	135	86.9
Cadmium (kg)	Wet	0	0	0.0245	0.0858	0.0007	0.148
	Base	0.0254	0.0249	0.0227	-0.0169	0.0249	-0.0006
Copper (kg)	Wet	0.0037	0.168	1.35	2.42	0.852	-1.97
	Base	0.672	0.670	0.177	0.214	0.429	0.870
Lead (kg)	Wet	0.0112	0.930	5.22	6.81	0.651	-8.39
	Base	0.295	0.325	0.138	-0.0068	0.427	0.0285
Fecal coliforms (x 10^{12} counts)	Wet	0.843	2.16	1.36	252	3.12	-256
	Base	0.0461	0.0779	0.168	0.282	0.0683	0.632
NH_4 (kg)	Wet	1.68	0.176	6.19	54.0	-1.86	-57.0
	Base	0.940	1.85	1.07	-0.961	6.58	8.12
Wet Event 2							
Flow (x $10^6 m^3$)	Wet	4.58	3.29	1.02	0.493	1.81	0.762
	Base	1.78	0.948	0.374	0.0772	0.264	0.0580
Cadmium (kg)	Wet	1.42	0.935	0.198	0.597	2.08	1.11
	Base	0.539	0.309	0.593	-0.464	-0.0855	-0.191
Copper (kg)	Wet	77.5	46.7	17.5	5.72	71.9	231
	Base	14.3	8.33	4.63	4.01	-4.62	-0.203
Lead (kg)	Wet	59.7	48.2	55.5	25.7	51.9	60.1
	Base	6.26	4.04	3.61	-0.710	0.326	-3.02
Fecal coliforms (x 10^{12} counts)	Wet	19.0	19.6	4.01	16.6	14.8	128
	Base	0.978	0.967	4.39	5.54	0.0050	-0.781
NH_4 (kg)	Wet	18.7	8.67	1.02	2.64	14.7	110
	Base	19.9	23.0	27.8	-25.5	52.1	55.8

TABLE 9

SPRING RUNOFF LOADING DIFFERENCES
FOR SIX HUMBER SUBBASINS

Parameter	Upper Humber	West Humber	Upper Black Creek	Lower Black Creek	Mid Humber	Lower Humber
Flow (x $10^3 m^3$)	36.3	13.8	3.69	1.14	3.02	1.90
Cadmium (kg)	29.4	8.90	3.03	2.79	-5.23	1.10
Copper (kg)	787	227	106	49.5	-44.3	150
Lead (kg)	414	223	226	125	126	367
Fecal coliforms (x 10^{12} counts)	99.0	48.1	27.6	265	-29.7	138
NH_4 (kg)	203	98.5	83.4	-49.9	88.1	1090

3.6.1 - Relative Subbasin Contributions

Figure 17 shows, for each of the five parameters, the percentage of the sum of the positive contributions from all six subbasins contributed by each subbasin during Wet Event 1. The base flow portion has been separated for comparison with the runoff contribution.

Several points should be borne in mind while interpreting this figure.

- This event followed a long dry period.

- Precipitation fell only in the lower portion of the watershed so that no runoff was measured from the rural subbasin above Site 10.

- Sampling at Site 3 was discontinued before the "event peak" had passed.

In general Figure 17 shows clearly that the runoff contribution was many times higher than that attributable to base flow. This indicates that contaminants that accumulated during the preceding dry period were indeed mobilized during the event. Because the large upstream rural catchment did not respond (produce runoff) in the first wet event, the relative importance of the small urban subbasins such as Black Creek is amplified. The large ammonia contribution noted from this drainage area is attributed to the effects of the combined sewer overflow system.

The negative loading differences noted for ammonia, coliforms and copper for the Lower Humber subbasin could be artifacts of the differencing procedure. Because sampling at Site 3 was discontinued prematurely, it is possible that the calculated event loadings did not incorporate the total input from the upstream drainage areas. In the process of differencing the loadings,

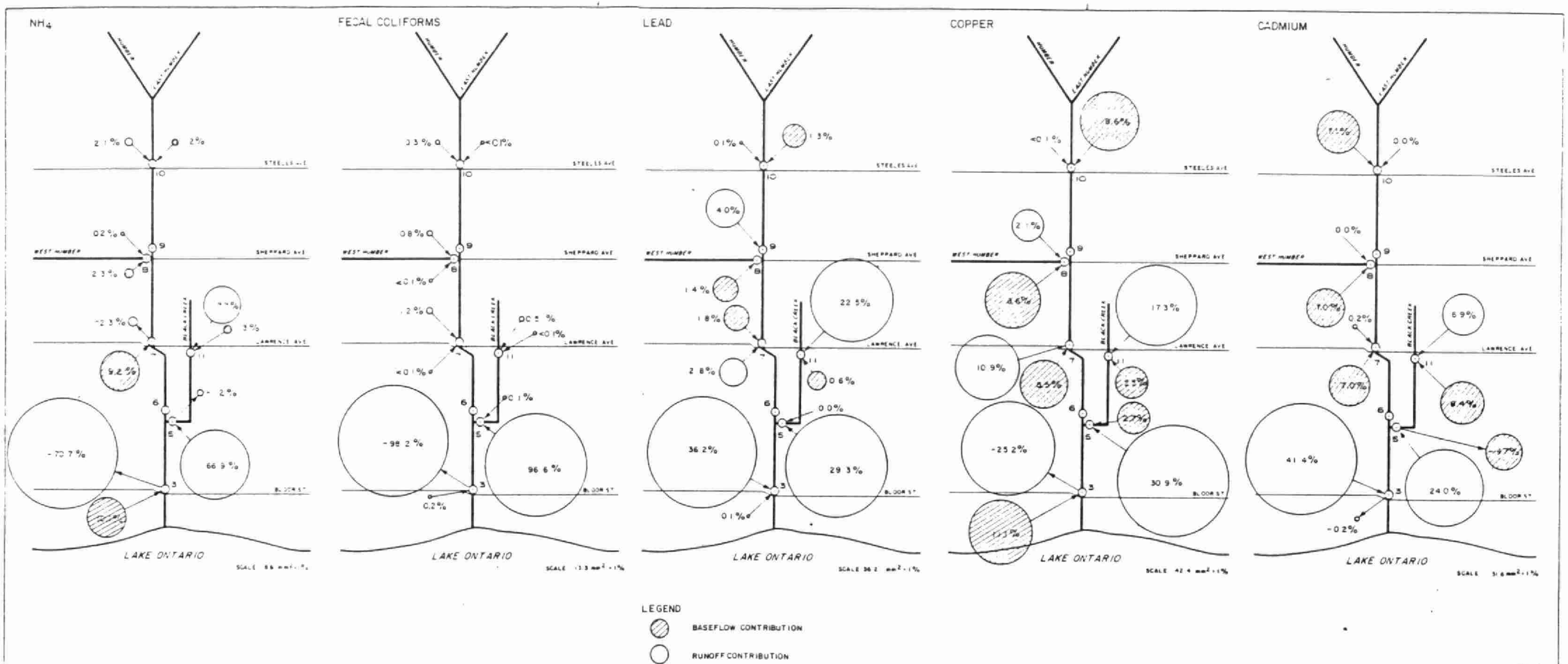


FIG 17

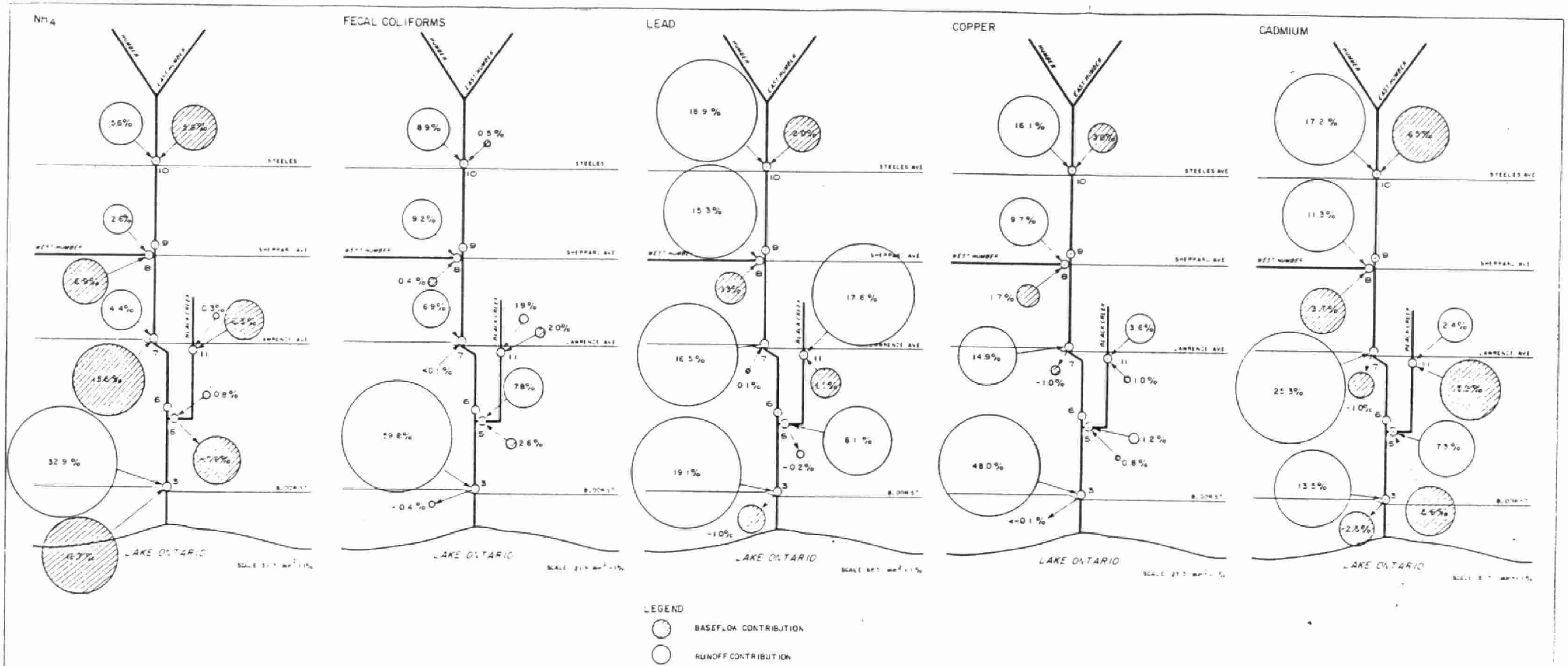
ONTARIO MINISTRY OF ENVIRONMENT
TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82
SUBBASIN CONTRIBUTIONS - WET EVENT

negative numbers could therefore be generated. For the same reason, the positive loadings noted for lead and cadmium are probably underestimates of actual local input.

Further discussion of observed behaviors is provided in Section 3.6.2.

Figure 18 shows the relative subbasin contributions during the second wet event. As was the case for the first wet event, sampling at Site 3 may not have been continued long enough, thereby complicating the subbasin loadings reported for the Lower Humber. Unlike during the first wet event, however, rain fell throughout the Humber watershed so the rural contributions could be assessed. It is also of note that this event immediately followed an earlier rainfall. With a "prewashed" system one might have expected a very low runoff contribution of contaminants; however, for bacteria, lead and copper the base flow contribution was small in comparison to the runoff from all of the subbasins. This tendency also held for cadmium except in the Upper Black Creek subbasin where the runoff contribution was only one third of the calculated base flow input. This apparent runoff dilution effect may indicate a specific dry weather source somewhere within the Upper Black Creek watershed.

The behavior of ammonia was distinctly different from that of the other parameters. Little ammonia was contributed by the runoff portion of the event for any of the Middle and Upper Humber subbasins with the single exception of Lower Black Creek where the base flow contribution was negative. This sink was also observed during the first wet event and its possible causes are discussed in Section 3.6.2. The overall implication of the ammonia behavior is that this soluble contaminant is easily washed from the system and had been largely "purged" by the rain prior to the sampled event. It is also of note that the largest runoff contributions of ammonia came from the predominantly rural catchments where sources such as fertilizers would be more dispersed.



ONTARIO MINISTRY OF ENVIRONMENT
TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82
SUBBASIN CONTRIBUTIONS - WET EVENT 2

Figure 19 shows relative subbasin contributions during the Spring Runoff sampling period.

All subbasins except Lower Black Creek were net contributors of total ammonia. The largest contribution came from the Lower Humber subbasin. This subbasin was also the largest source of total ammonia during Wet Event 2, but it was a net sink for total ammonia during Wet Event 1 when the Lower Black Creek subbasin was the largest source.

The Lower Black Creek subbasin was the largest source of fecal coliforms during Spring Runoff as it was during Wet Event 1. The Middle Humber was the only sink for fecal coliforms during this event.

The Upper Humber subbasin was the largest contributor of lead during Spring Runoff, whereas the Lower Humber subbasin was the largest contributor during both wet events. No subbasin was a sink for lead during the Spring Runoff. Note that the Lower Humber was the second largest source of lead.

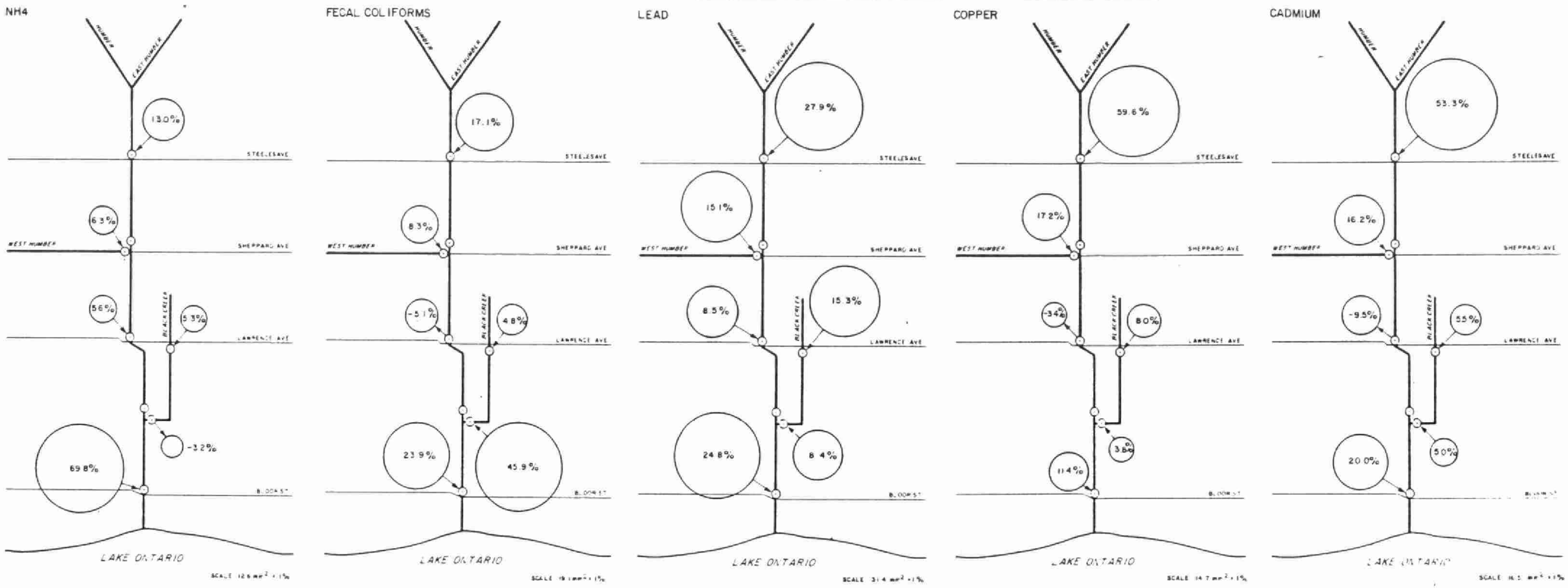
The largest contributor of copper and cadmium was the rural Upper Humber subbasin. This indicates that background loadings of copper and cadmium to the urban Humber are significant.

3.6.2 - Contributions Per Unit Area

Since the six subbasins described earlier differ in size, fluxes and loadings were expressed on a per-unit-area basis to assess dry and wet event contributions in a more direct way.

Dry Weather

Table 10 shows the average dry weather fluxes per unit area for each of the six Humber River subbasins.



NOTE

PERCENTAGES ARE PERCENT OF SUM OF ALL POSITIVE CONTRIBUTIONS

FIG 19

ONTARIO MINISTRY OF ENVIRONMENT

TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82

SUBBASIN CONTRIBUTIONS - SPRING RUNOFF

TABLE 10

AVERAGE FLUX PER UNIT
SUBBASIN AREA FOR DRY WEATHER

Parameter	Upper Humber $537\ km^2$	West Humber $221\ km^2$	Upper Black Creek $50.4\ km^2$	Lower Black Creek $14.7\ km^{2*}$	Mid Humber $41.4\ km^2$	Lower Humber $27.2\ km^2$
Runoff (mm/s)	2.77×10^{-6}	4.73×10^{-6}	2.88×10^{-6}	2.04×10^{-6}	9.66×10^{-6}	6.52×10^{-6}
Cadmium ($\times 10^{-9}$ kg/[$km^2 \cdot s$]	0.840	1.54	4.56	-12.2	-1.06	-5.15
Copper ($\times 10^{-9}$ kg/[$km^2 \cdot s$])	22.2	41.6	35.6	106	-84.4	141
Lead ($\times 10^{-9}$ kg/[$km^2 \cdot s$])	9.68	20.4	27.8	-20.4	16.9	-58.8
Fecal coliforms (Total counts/[$km^2 \cdot s$])	1.52×10^3	4.83×10^3	33.7×10^3	146×10^3	0.725×10^3	171×10^3
NH_4 ($\times 10^{-9}$ kg/[$km^2 \cdot s$])	31.1	115	214	-673	1230	1830

*Does not include 9.5 km^2 from combined sewer overflow.

Flow (reported as millimetres of runoff) was greatest from the Mid Humber subbasin, which is about one-quarter open, one-quarter industrial, and one-half residential. Flow was least from the Lower Black Creek subbasin, which is mostly residential and open and from which the runoff is directed via the combined sewer runoff interceptor. The second highest flow came from the Lower Humber subbasin, which is mostly residential and open, and the second lowest flow came from the Upper Humber subbasin, which is almost entirely open. There does not appear to be a clear relationship between land use and flow from subbasins.

Cadmium flux per unit area was greatest for the Upper Black Creek subbasin. The Mid Humber and Lower Humber subbasins tended to accumulate cadmium. The apparent sink for cadmium in Lower Black Creek cannot be verified. It results from one cadmium value that was reported as being below a detection limit 10 times the normal detection limit. For these calculations, values reported as less than a detection limit were assumed to be equal to the detection limit, so all results based on these values overemphasize their contribution.

The greatest copper fluxes per unit area came from the Lower Humber and Lower Black Creek subbasins. The Mid Humber subbasin was a sink for copper during the dry events.

Lead, which has great affinity for particulate materials, showed dry weather fluxes similar to those shown by cadmium. Highest flux per unit area was from the Upper Black Creek subbasin, and the Lower Black Creek and Lower Humber subbasins accumulated lead. The chief difference between lead and cadmium flux distributions was that the Mid Humber was source of lead but a sink for cadmium during the dry events.

The highest fluxes per unit area of fecal coliforms came from the Lower Humber and Lower Black Creek subbasins. The more rural subbasins, Upper Humber, West Humber and Mid Humber,

contributed far fewer fecal coliforms per unit area during dry weather. The Upper Black Creek flux per unit area seems rather high for a subbasin that is about half rural.

The largest contributors of total ammonia were the Mid and Lower Humber subbasins. The Lower Black Creek subbasin acted as a big sink for total ammonia. Nitrification, the microbial oxidation of ammonia to nitrate, is normally one of the main sinks of ammonia, but it is too slow a process to account for the loss of so much ammonia during the short time of travel between Sites 11 and 5. An industrial source of oxidant could account for the apparent rapid loss.

Wet Events

Tables 11 and 12 give total event loadings per unit subbasin area for selected parameters for Wet Events 1 and 2 respectively.

There was some difficulty in estimating wet event contaminant contributions from the lower Humber watershed subbasins, primarily because of the sampling problems mentioned earlier. The loadings per unit area for the Lower Humber subbasin were therefore not calculated for Wet Events 1 and 2. Event loadings were not attempted at all for the third wet event because there was some question regarding the adequacy of the sampling effort for the earlier part of the event hydrograph.

All subbasins for which loadings were calculated were sources of cadmium during both wet events. The largest sources were the Upper Black Creek and Lower Black Creek subbasins.

The largest total event loadings for copper came from the Upper and Lower Black Creek and Mid Humber subbasins. The smallest loadings came from the Upper Humber and West Humber subbasins for both events. The Mid Humber was a source of copper during Wet Event 1. This differs from the dry weather situation when the Mid Humber was a sink for copper.

TABLE 11

TOTAL EVENT LOADING PER UNIT SUBBASIN AREA FOR WET EVENT 1

Parameter	Upper Humber 537 km^2	West Humber 221 km^2	Upper Black Creek 50.4 km^2	Lower Black Creek 14.7 km^2*	Mid Humber 41.4 km^2	Lower Humber 27.2 km^2
Runoff (mm)	0.158	0.382	0.958	2.53	3.75	-
Cadmium ($\times 10^{-3}$ kg/km^2)	0.0473	0.112	0.936	4.70	0.619	-
Copper ($\times 10^{-3}$ kg/km^2)	1.25	3.79	30.4	180	30.9	-
Lead ($\times 10^{-3}$ kg/km^2)	0.570	5.68	106	464	26.0	-
Fecal coliforms (Total counts/km^2)	1.66×10^9	10.1×10^9	30.4×10^9	$17\ 200 \times 10^9$	76.9×10^9	-
NH_4 ($\times 10^{-3}$ kg/km^2)	4.88	9.18	144	3610	114	-

- Not calculated.

*Does not include 9.5 km^2 from combined sewer overflow.

TABLE 12

TOTAL EVENT LOADING PER UNIT
SUBBASIN AREA FOR WET EVENT 2

Parameter	Upper Humber 537 km^2	West Humber 221 km^2	Upper Black Creek 50.4 km^2	Lower Black Creek 14.7 km^2*	Mid Humber 41.4 km^2	Lower Humber 27.2 km^2
Runoff (mm)	11.8	19.1	27.7	38.9	-	-
Cadmium ($\times 10^{-3}$ kg/km^2)	3.65	5.62	15.7	9.06	-	-
Copper ($\times 10^{-3}$ kg/km^2)	171	249	440	663	-	-
Lead ($\times 10^{-3}$ kg/km^2)	123	236	1170	1700	-	-
Fecal coliforms (Total counts/km^2)	37.2×10^9	92.8×10^9	167×10^9	1510×10^9	-	-
NH_4 ($\times 10^{-3}$ kg/km^2)	71.9	143	572	-1560	-	-

\- Not calculated.

*Does not include 9.5 km^2 from combined sewer overflow.

All subbasins for which loadings were calculated were sources of lead during both wet events. The largest sources were the Upper and Lower Black Creek subbasins. The Lower Black Creek subbasin was a lead sink during dry weather.

The largest contributor of fecal coliforms during Wet Event 1 was the Lower Black Creek subbasin and the second largest contributor was the Mid Humber subbasin. During Wet Event 2, the largest contributor was the Upper Black Creek subbasin.

The Upper Black Creek subbasin was a large source of ammonia during both wet events as it was during dry weather. The Lower Black Creek subbasin was a sink for ammonia during the second wet event, as it was during dry weather. However, during the first wet event this subbasin was the largest source of ammonia of all the subbasins for which total event loadings were calculated.

During wet events, the two Black Creek subbasins were the largest contributors on a unit area basis of all five of the selected parameters considered. This implies that during wet events the combined sewer overflow in the Lower Black Creek subbasin is not the only significant contributor of these parameters.

Spring Runoff

Table 13 shows Spring Runoff loadings per unit subbasin area for the six Humber River subbasins for selected parameters.

Each subbasin but the Mid Humber was a source of cadmium and copper during Spring Runoff. The largest net contributor of both cadmium and copper was the Lower Humber subbasin and the second largest was the Lower Black Creek subbasin.

All six subbasins were sources of lead. The same two subbasins, Lower Humber and Lower Black Creek, were the largest net contributors of lead.

TABLE 13

TOTAL EVENT LOADING PER UNIT SUBBASIN AREA FOR SPRING RUNOFF

Parameter	Upper Humber 537 km^2	West Humber 221 km^2	Upper Black Creek 50.4 km^2	Lower Black Creek 14.7 km^2*	Mid Humber 41.4 km^2	Lower Humber 27.2 km^2
Runoff (mm)	67.4	62.4	73.2	77.9	73.0	69.7
Cadmium ($\times 10^{-3}$ kg/km^2)	54.6	40.2	60.2	187	-126	403
Copper ($\times 10^{-3}$ kg/km^2)	1460	1030	2110	3370	-1070	5500
Lead ($\times 10^{-3}$ kg/km^2)	771	1010	4480	8510	3040	13 500
Fecal coliforms (Total counts/km^2)	185×10^9	218×10^9	547×10^9	$18\ 100 \times 10^9$	-718×10^9	5080×10^9
NH_4 ($\times 10^{-3}$ kg/km^2)	377	445	1660	-3400	2130	40 100

*Does not include 9.5 km^2 from combined sewer overflow.

For fecal coliforms, the largest source during Spring Runoff was the Lower Black Creek subbasin. The Lower Humber subbasin was the second largest source and the Mid Humber subbasin was a sink for fecal coliforms.

The Lower Humber subbasin was the largest contributor of total ammonia and the Mid Humber subbasin was the second largest contributor. The Lower Black Creek subbasin was a sink for ammonia during Spring Runoff as it was during the dry events and Wet Event 2.

During Spring Runoff, the largest contributor on a unit area basis of all of these parameters but fecal coliforms was the Lower Humber subbasin. The Lower Black Creek subbasin was the largest contributor of fecal coliforms and the second largest contributor of each of the other parameters except ammonia.

3.7 - Annual Loadings

Figure 20 shows annual loadings of eight parameters to Lake Ontario from the Humber River. None of the regression lines in this figure has a slope significantly different from zero at the 95% confidence level. The results suggest that there was no significant change in annual loadings of flow, residue filtrate, residue particulate, fecal coliforms, total ammonia, total phosphorus, lead, or zinc between 1972 and 1982.

Note that the loading values in Figure 20 follow the trend of the discharge volume values. This is expected because of the way daily loadings were synthesized using daily historical discharges.

3.8 - RSF Simulation With HSP-F

HSP-F was used to simulate the behavior of residue filtrate (RSF) in the lower portion of the Humber River for the period August to November

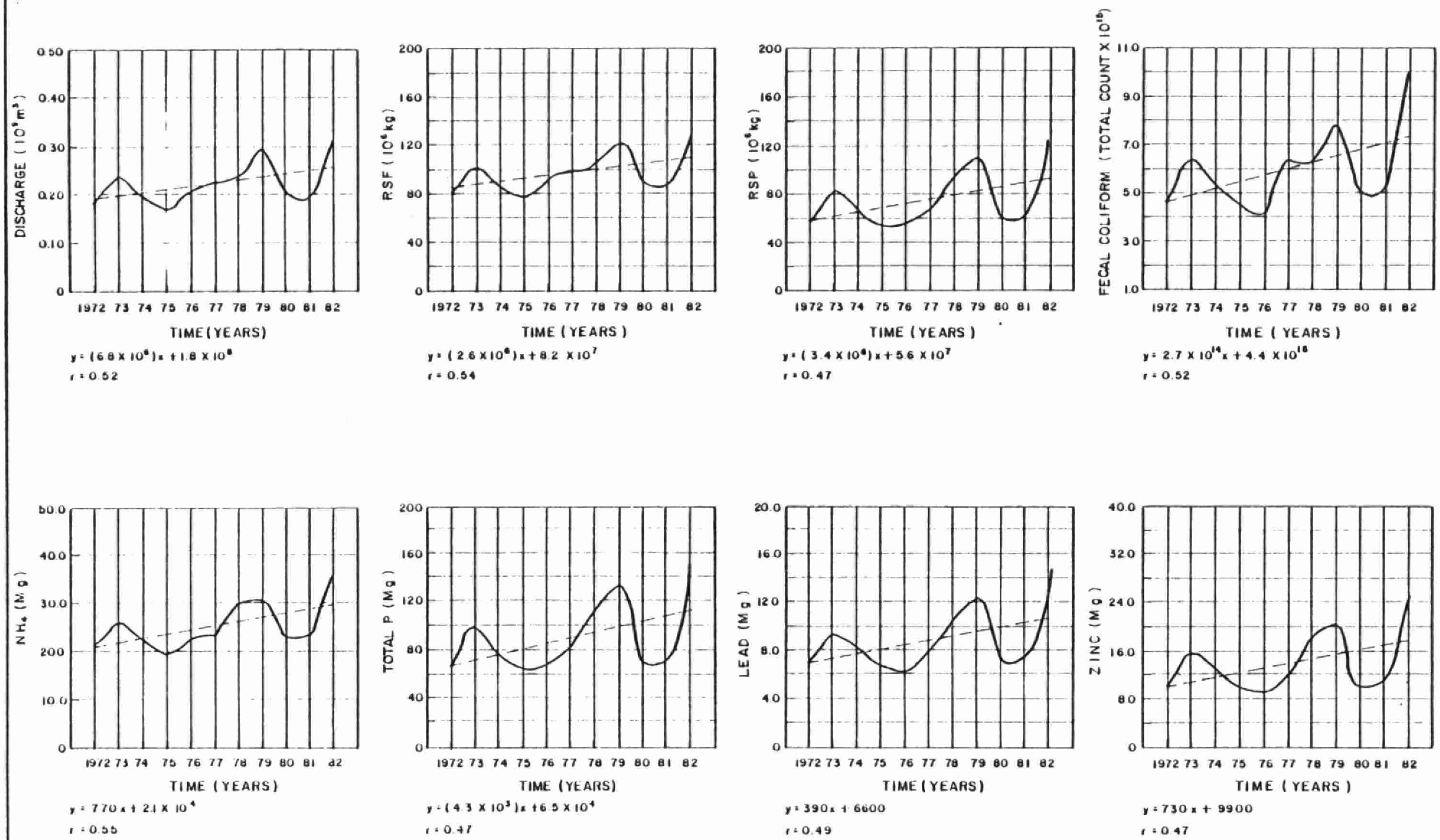


FIG. 20

ONTARIO MINISTRY OF ENVIRONMENT
TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82

RECENT ANNUAL LOADINGS TO LAKE ONTARIO BY THE HUMBER RIVER

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1982. RSF is a measure of the total amount of solid material dissolved in water. For the simulation, RSF was allowed to enter the lower Humber in

- active groundwater discharge from pervious land areas

- interflow from pervious land areas

- surface runoff from impervious land areas

- flow into the modeled portion of the Humber River from the Humber upstream from Elder Mills, from the East Humber, from the West Humber and from Black Creek.

HSP-F allows the model user to specify RSF concentrations in active groundwater and interflow discharges into a reach. For the simulation, these values were set so as to cause simulated RSF concentrations during dry weather to approximate RSF concentrations observed during Dry Events 1 and 2. Active groundwater and interflow RSF concentrations were set to 500 mg/L in the upper Humber, 800 mg/L in the middle Humber and 1,500 mg/L in the lower Humber. Note that in the absence of information about point-source additions of RSF, all the local, dry-weather RSF loadings needed to bring the simulated RSF concentration up to the observed value are assumed to enter a reach in groundwater and interflow.

Although there is much information in technical literature about accumulation rates of total solids on impervious surfaces, there is little information on accumulation rates of the soluble fraction of total solids. For the simulation, an RSF accumulation rate of 0.02 kg/(ha·d) derived from data in APWA (1969) was used. This resulted in a dilution of RSF in the river reaches during storms, which follows the observed behavior or RSF in the Humber River.

Most (80%) of the RSF leaving the modeled portion of the Humber comes from the four rivers flowing into the lower Humber. Recall from Section 2.5 that the RSF contributions of these four rivers were

synthesized using limited data. There is considerable error inherent in the method by which these contributions were synthesized. Verhoff et al (1980) reported errors on loading estimates of 40% for the Maumee River and 61% for the Sandusky River using the flow interval method to estimate loadings. The overwhelming importance of riverine RSF and the relatively large errors possible in the RSF input time series mean that it would be unproductive to make extensive adjustments to model parameters in an effort to improve the correspondence between simulated and observed RSF concentrations.

Figure 21 shows observed and simulated RSF concentrations at Sites 3, 7 and 9. Note that agreement between observed and simulated RSF concentrations is reasonably good during the dry events and Wet Events 1 and 2. Agreement is not so good during Wet Event 3. During this last wet event, the simulated RSF concentration is generally lower than the observed RSF value. This might result from seasonal variations in groundwater or point-source RSF concentrations that were not incorporated into the model.

3.9 - Sediment Chemistry

Annex 2 reports sediment chemistry results determined during TAWMS 82, and Annex 4 reports results of a special scan for metals in sediments from selected sites.

Levels of metals in sediments were generally highest at Sites 3, 7 and 14. Metals are generally associated with organic materials in sediments, however, and residual total loss on ignition (RSTLOI, a measure of organic content) was also highest at these three sites. RSTLOI at Sites 3, 7 and 14 was roughly one and a half times greater than at the other Humber River sediment sampling sites. Levels of metals, however, were generally from one and a half to 15 times greater at Sites 3, 7 and 14 than at the other sites. It thus seems likely that higher organic content is not the only explanation of higher metals levels at Sites 3, 7 and 14. Sites 3 and 14 are near the base of the Humber watershed and they also receive material delivered to the Humber

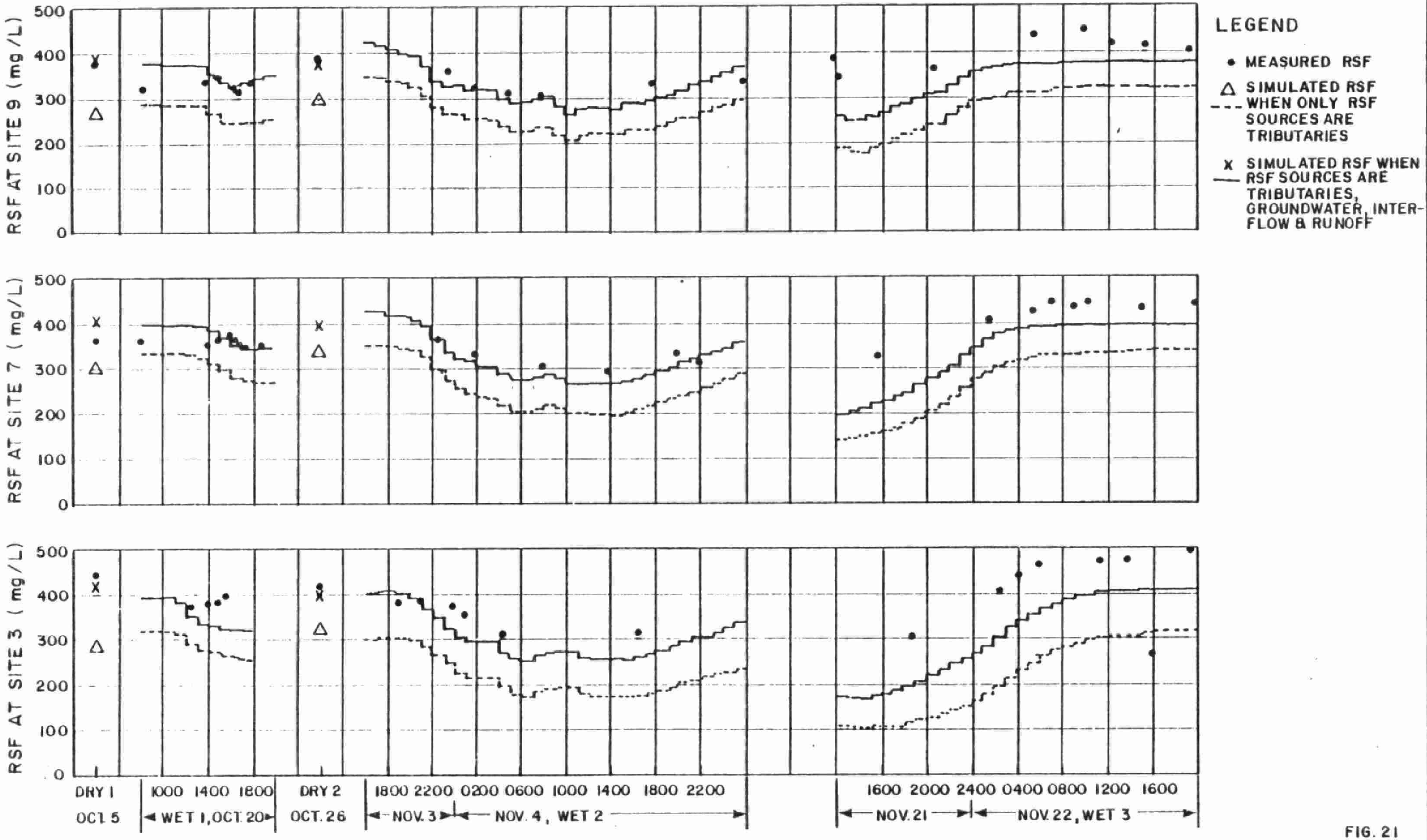

FIG. 21

ONTARIO MINISTRY OF ENVIRONMENT

TORONTO AREA WATERSHED MANAGEMENT STUDY - TAWMS 82

SIMULATED AND OBSERVED RSF CONCENTRATIONS IN THE HUMBER RIVER

ACRES

by Black Creek. Site 7 is at the base of the subbasin, with the highest percentage of industrial land use of any in the Humber watershed.

The only pesticide or organic parameter detected routinely in sediments from the Humber watershed was PCB. It was found in sediments from Black Creek and from the lower main stem Humber.

3.10 - Bioaccumulation of Toxic Substances

Annex 3 reports clam tissue levels of pesticides and organic compounds.

PCBs and DDE appeared to be the organic compounds most prevalent in clam tissue. Figure 22 shows the relative levels of PCBs and DDE in clam tissue at the end of the bioaccumulation study. Highest levels of PCBs were found in clams from Black Creek. Highest levels of DDE were found in clams from Black Creek and the West Don River. PCBs were also frequently found in sediments, especially in the lower Humber River.

The concentrations of pesticides and organic compounds were usually below detection limits, so concentration factors were not calculated. Concentration factors could be calculated, however, for total PCBs at four sites. Figure 23 shows that the highest concentration factors for PCBs in clam and sediment occurred at the mouths of Black and Taylor creeks.

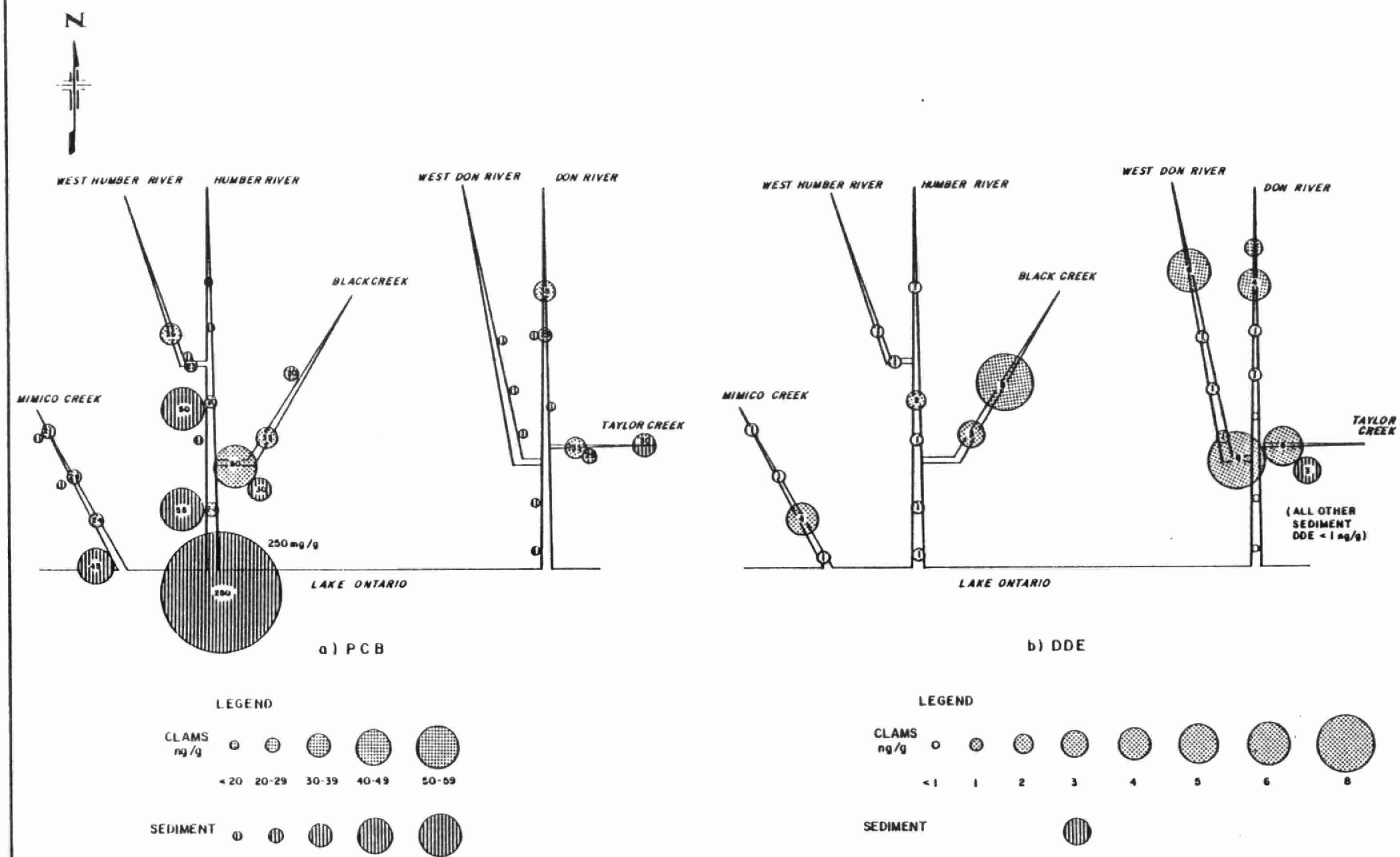

FIG. 22

ONTARIO MINISTRY OF ENVIRONMENT

TORONTO AREA WATERSHED MANAGEMENT STUDY-TAWMS 82

PCB AND DDE IN CLAMS AND SEDIMENTS

4 - DISCUSSION

4 - DISCUSSION

The Spring Runoff sampling program was intended to assess the effect of spring storms and snowmelt on Humber River water quality. The winter of 1982/83 was unusually warm, and consequently, there was virtually no snowpack at the end of the winter. For several reasons, this could have lessened the overall effect of spring runoff on receiving water quality.

(1) Less salt was applied to Toronto streets to ensure safe driving conditions during the winter. Solids therefore probably accumulated on Toronto streets at a lower rate than usual during the winter of 1982/83.

(2) Solids were not bound in the snowpack and were always available for removal in runoff. This might have led to

- more uniform removal than usual of solids from impervious surfaces during the winter

- more rapid removal than usual of solids from impervious surfaces with the onset of spring runoff, leading to high loadings for a brief period in early spring and lower loadings thereafter.

(3) Owing to the warmth of the winter, the ground was not as completely frozen as usual. This could have caused increased infiltration and reduced surface runoff compared to normal winters.

These consequences of the warm winter of 1982/83 should be remembered when using the results of the Spring Runoff sampling program to develop a water quality management strategy for the Humber River.

Table 14 shows mean runoff concentrations of selected parameters for three Humber River drainage areas compared with selected Ontario urban drainage areas. The parameters listed are those most commonly measured in studies of urban runoff.

TABLE 14

COMPARISON OF RUNOFF CONCENTRATIONS
FOR SELECTED ONTARIO DRAINAGE AREAS

Catchment	Rural Humber*	Upper Urban Humber*	Black Creek*	Guelph West	Brucewood Test Catchment**	Windsor Storm Sewer Discharge	Calculated Flow-Weighted Means for Ontario Great Lakes Communities: Surface Runoff	Calculated Flow-Weighted Means for Ontario Great Lakes Communities: Combined Sewer Overflow
Drainage Area	537 km^2	800 km^2	65.1 km^2		0.195 km^2	0.36 km^2		
Land Use	100% open	4% low density 1% high density 4% industrial 91% open	37% low density 11% high density 14% industrial 38% open	37% low density 8% high density 33% industrial 22% open	100% low density (separate sewers)	100% low density		
Source Reference	+			Waller & Novak, 1979	James F. MacLaren, 1980	Hartt, 1973	Waller and Novak, 1979	
BOD_5 (mg/L)	0.795	2.26	11.0	13.9	7.5 (5)	12	14	41
NH_3-N (mg/L)	0.918	0.002	0.464	-	0.28 (5)	0.087	-	-
Total P (mg/L)	0.297	0.266	0.730	0.35	0.17 (5)	0.98	0.35	1.4
Residue particulate (mg/L)	137	193	168	195	79 (5)	305	170	190
Fecal coliforms (counts/100 mL)	4.61×10^4	1.07×10^4	1.95×10^5	-	1 062 (4)	2.41×10^6	5×10^3	1×10^6
Lead (mg/L)	0.013	0.035	0.119	-	0.32 (5)	-	-	-

\- Not determined
* Arithmetic mean of Wet Events 1 and 2 event average runoff concentrations only.
**Arithmetic mean of means for events in October and November 1974. The numbers in parentheses represent the number of individual items used to calculate the mean.
+TAWMS 82 Program.

The three Humber catchment drainage areas were selected to represent three degrees of urbanization. The first drainage area, the Rural Humber, is that portion of the Humber catchment upstream from Site 10. This drainage area is almost 100% open. The Upper Urban Humber is that portion of the Humber catchment upstream from Site 7. Although this drainage area is also mostly open, it is more urbanized than the Rural Humber drainage area. The third drainage area, Black Creek, is the entire Black Creek catchment. It is the most urbanized of the three Humber drainage areas considered and it alone receives combined sewer overflows.

Average runoff concentrations computed for the first two wet events sampled during the fall of 1982 were used to calculate the arithmetic mean runoff concentrations for these three drainage areas.

The mean runoff concentrations generally increased with increasing urbanization in the Humber catchment. BOD_5 went from 0.795 mg/L in the Rural Humber to 11.0 mg/L in Black Creek, fecal coliforms went from 10 700 counts/100 mL in the Upper Urban Humber to 195 000 counts/100 mL in Black Creek, and lead went from 0.013 mg/L in the Rural Humber to 0.119 mg/L in Black Creek. Total phosphorus was also highest in Black Creek, but it was lowest in the Upper Urban Humber, not in the Rural Humber.

Ammonia nitrogen was highest in the Rural Humber and lowest in the Upper Urban Humber. Residue particulate was highest in the Upper Urban Humber and lower in the Rural Humber.

Mean runoff concentration of BOD_5 for the Upper Urban Humber was less than that calculated for surface runoff from Ontario Great Lakes communities and less than those reported for the Brucewood Test Catchment and Windsor storm sewer discharge. Total phosphorus in the Upper Urban Humber was less than in Windsor storm sewer discharge but more than in Brucewood Test Catchment discharge. Ammonia mean runoff concentration was much lower in the Upper Urban Humber than in the Brucewood or Windsor residential catchments. Residue particulate and

fecal coliform mean runoff concentrations in the Upper Urban Humber were much greater than those from Brucewood storm sewers but much less than those from Windsor storm sewers.

For Black Creek, mean runoff concentrations of BOD_5 and residue particulate were about the same as those calculated for surface runoff from Ontario Great Lakes communities. Total phosphorus and fecal coliforms were higher in Black Creek than in surface runoff from Great Lakes communities as a result of combined sewer overflow into Black Creek. The land use in the Black Creek drainage area is similar to that in the Guelph West drainage area, and BOD_5 and residue particulate concentrations are roughly the same in the two areas. However, mean runoff concentration of total phosphorus for Black Creek was about two times that for Guelph West. This is because of the combined sewer overflow into Black Creek.

Table 15 compares levels of some organic compounds in clams from the mouths of the Humber River, Don River and Black Creek, with levels in clams from the Niagara River. None of the selected compounds were detected in the Humber River clams, whereas all but mirex were usually detected in the Niagara River clams. Only α-BHC was detected in the Don River clams and only PCBs were detected in the Black Creek clams. The level of PCBs in the Black Creek clams was more than half the level in Niagara River clams at Niagara Falls, New York, and Niagara-on-the-Lake, Ontario.

The Canadian Wildlife Service measured a similar set of organic compounds in clams from the St. Clair River, Detroit River, St. Catharines Yacht Club and Hamilton Harbour. PCBs were the only compound consistently detected in these clams (J. Struger, CWS, personal communication).

Table 16 shows levels of several pesticides and organic compounds in common shiners from the Humber River system. Every compound but mirex was detected at least once in these fish. In contrast to the clams, which were immersed in the Humber River for only three weeks, these fish had spent their entire life in the Humber River. This gave them a much longer time to accumulate persistent organic compounds. Note also

TABLE 15

PESTICIDES AND ORGANIC COMPOUNDS IN CLAMS FROM THE HUMBER, DON AND NIAGARA RIVERS

	Humber River Near Lakeshore Boulevard[1]	Don River Near Front Street[1]	Black Creek Near Scarlett Road[1]	Lake Erie at Thunder Bay, Ontario[2]	Niagara River at Chippawa, Ontario[2]	Niagara River at Niagara Falls, New York[2]	Niagara River at Niagara-on-the-Lake, Ontario[2]
Lipid (%)	1.1	3.4	2.6	1.0	1.3	1.5	0.4
α-BHC (ng/g)	-	TR	-	5	5	12	-
Chlordane (α and γ) (ng/g)	-	-	-	-	2	8	-
Mirex (ng/g)	-	-	-	-	-	TR	-
PCB (ng/g)	-	-	50	-	23	79	95
DDT + metabolites (ng/g)	-	-	-	TR	11	TR	TR
Hexachlorobenzene (ng/g)	-	-	-	TR	TR	4	TR

[1]TAWMS 82

[2]Canada-Ontario Review Board, Environmental baseline report of the Niagara River, November 1981 update, 1981.

\- Not detected
TR Trace

TABLE 16

PESTICIDES AND ORGANIC COMPOUNDS IN COMMON SHINERS
FROM THE HUMBER RIVER MEAN VALUES (AND SAMPLE SIZE)*

		Main Stem Humber River								West Humber River	
	Year	Steeles Avenue (10)**	Finch Avenue (10/9)	Humber at West Humber (9)	Humber at Lawrence (7)	Humber at Scarlett Road (7/6)	Humber at Black Creek (6)	Humber at Old Mill (3)	Humber Estuary (3)	West Humber at Highway 27 (8)	West Humber at Humber (8)
Sample size	1981		3			4	4	5	6		
Parameter	1982	5		5	5	5	5		6	5	5
Fish size (mm)	1981		57			59	55	56	62		
	1982	63		54	59	61	60	63	58	64	57
Lipid (%)	1981		3.8			5.7	6.1	3.4	5.0		
	1982	5.0		6.0	11.4	4.2	4.8	7.6	3.7	4.2	4.3
Total hexachloro-cyclohexane (ng/g)	1981		5			5	8	16	9		
	1982	-		-	-	TR	-	TR	3	5	5
Total chlordane (ng/g)	1981		11			9	12	14	26		
	1982	28		22	22	24	23	25	22	9	16
Mirex (ng/g)	1981		-			-	-	-	-		
	1982	-		-	-	-	-	-	-	-	-
PCB (ng/g)	1981		160			228	1106	1054	954		
	1982	222		321	427	508	437	357	353	338	357
Total DDT (ng/g)	1981		12			9	27	61	86		
	1982	TR		14	33	29	40	34	28	22	16
Total hexachloro-benzene (ng/g)	1981		1			2	22	3	-		
	1982	-		1	TR	2	1	TR	3	TR	TR

* Source: K. Suns, MOE, Letter of November 15, 1983, to W. Lammers, Chairman, TAWMS Water Quality Working Group, Central Region.
**Number in parentheses is nearest TAWMS 82 water sampling site.

\- Not detected
TR Trace

that the percentage lipid (fatty tissue) was higher in the fish than in the clams. Because these organic compounds tend to accumulate in fatty tissue, the higher lipid content of fish could also help explain why higher levels of the organics were found in fish.

5 - CONCLUSIONS AND RECOMMENDATIONS

5 - CONCLUSIONS AND RECOMMENDATIONS

5.1 - Conclusions

For most of the conventional water quality parameters, concentrations were highest during the wet events and lowest during the dry events. Spring Runoff concentrations were usually intermediate.

Total ammonia, pH, and residue filtrate concentrations, on the other hand, were generally higher during the dry events than during the wet events.

Results from Black Creek differed from the above in several ways. Here, wet event concentrations were higher than dry event concentrations for total ammonia and lower for total phosphorus, suggesting a different source of nutrients in Black Creek to that in the Humber River. Fecal coliforms in Black Creek were also higher during dry events than during Spring Runoff. Black Creek storm flow is dominated by urban surface runoff, whereas Humber River storm flow includes significant base flow and rural tributary inflow components. Thus the Humber River has a greater capacity to dilute contaminated urban storm water runoff. The combined sewer overflow on Black Creek also contributes domestic wastewater to Black Creek, leading to different water quality on Black Creek than on the Humber.

Trace inorganic parameters were usually highest during spring runoff and lowest during the dry events. Most exceptions to this trend occurred on Black Creek, where highest concentrations were found for wet events. On Black Creek, mean trace inorganic concentrations at Site 5 were always equal to or greater than concentrations at Site 11 during wet events. This trend reveals the influence of the combined sewer overflow between Sites 11 and 5.

The pesticides and organic parameters detected most frequently in water samples were

- α-BHC hexachlorocyclohexane
- β-BHC hexachlorocyclohexane
- γ-BHC hexachlorocyclohexane
- PCB, total
- 2-4,D
- pentachlorophenol.

The organic compound detected most often in sediments was PCB. PCBs and DDE appeared to be the organic compounds most prevalent in clam tissue.

Highest concentrations of most parameters were found in water samples from the mouths of Black Creek, Cook Creek, Don River and Mimico Creek. High concentrations of several organic compounds were found at the mouth of Taylor Creek.

The parameters that most consistently exceeded provincial water quality Objectives were fecal coliforms, cadmium, copper, and zinc. The guideline for total phosporus in streams was frequently exceeded during the wet events and spring runoff. Lead and PCB levels were often higher than Objectives during the wet events and spring runoff. For most parameters, exceedances were most common and most severe at the sampling sites at the mouths of Black Creek, Cook Creek, Don River, Humber River, Mimico Creek and Taylor Creek. Exceedances were generally less common at upstream sites on the main stem Humber River. Significant exceptions to this, however, were cadmium and copper, which almost always exceeded their Objectives, even at Site 10, the most rural of the Humber River sampling sites.

For total ammonia, fecal coliforms, cadmium, copper and lead, runoff relative subbasin loadings were generally higher than base flow relative subbasin loadings during the wet events. The largest contributors of most of these parameters were the Lower Black Creek and Lower Humber River subbasins. During dry events and Spring Runoff, however, the largest contributor of cadmium and copper was the rural Upper Humber subbasin, indicating a significant background loading of these parameters from the upstream rural Humber to the urbanized Humber. A groundwater source is suggested for this copper and cadmium.

The Lower Black Creek subbasin contributed the most contaminant per unit area for most of the events. This is the subbasin in which the combined sewer overflow is located. The main exceptions to this occurred during Spring Runoff, when the Lower Humber subbasin made the largest contributions per unit area for copper, lead, and total ammonia, and during the dry events, when the Lower Humber subbain made the largest contribution per unit area for fecal coliforms and total ammonia. These contributions from the Lower Humber subbasin might result from remobilization of contaminants in sediments.

Trace inorganic parameter concentrations were positively correlated with each other at most sampling sites. Residue particulate (total suspended solids) concentrations were positively correlated with trace inorganic concentrations at virtually every site. There were often positive correlations between discharge and residue particulate and between discharge and trace inorganic parameters. Residue filtrate (total dissolved solids) concentrations, however, tended to be inversely related to discharge, except at the rural Site 10.

A preliminary calibrated model to simulate the hydrology and residue filtrate mass balance of Black Creek was developed using HSP-F. The model was extended to the Humber River but in this application, the boundary conditions overwhelmed the influence of loadings from the urban Humber subbasins on simulated parameter concentrations in the Humber River. That is, so much water and residue filtrate entered the modeled portion of the Humber River in tributary inflows that small changes in urban contributions did not have noticeable effect on simulation results. This lack of sensitivity precluded fine calibration of the model for the main stem of the Humber River.

The preliminary models were delivered to MOE for further development and application in TAWMS. These models will ultimately be used to integrate results of the several TAWMS study components so as incorporate different parameter loading estimates into an overall mass balance for the Humber River. Changes in these loading estimates that would result from different pollution control practices can then be used along with the model to predict consequences for Humber River

water quality. Water quality predictions produced by the model will aid decision making during development of the water quality management plan for the Humber River.

There was no statistically significant trend between 1972 and 1982 in annual loadings to Lake Ontario from the Humber River of water, residue filtrate, residue particulate, fecal coliforms, total ammonia, total phosphorus, lead or zinc.

5.2 - Recommendations

5.2.1 - For Future TAWMS Sampling Programs

If a sampling program is undertaken to sample runoff events in a large watershed, a preliminary hydrologic model of the watershed should be used to predict the movement of flood peaks downstream. This would increase the likelihood of sampling the entire event at each site and it might permit the use of fewer sampling teams during short, intense storms.

Unless the sampling team is experienced at predicting and sampling runoff events, a practice sampling run should be done.

Transferring the results of water quality analyses on magnetic tape rather than on paper would speed up data analysis and reduce the chance of data entry errors.

To calibrate HSP-F for Black Creek and Humber River for residue filtrate (RSF), it was necessary to assign unrealistically high values to the groundwater loading of RSF to the reaches. It seems likely that man-made diffuse or point-source discharges rather than background groundwater discharges are responsible for the high RSF values measured during dry weather in Black Creek and the urbanized Humber River. These man-made sources should be identified and incorporated explicitly into HSP-F so a more physically reasonable model can be developed.

The effect on Humber River and Humber Bay water quality of the Berry Road sewer overflow on the west bank of the Humber River should be investigated. This overflow is downstream from the sampling site lowest in the Humber watershed, so its possible contribution was not assessed during TAWMS 82.

The Lower Humber subbasin exhibited highest loadings per unit area for copper, lead and total ammonia during Spring Runoff and for fecal coliforms and total ammonia during the dry events. The cause of this high unit areal loading should be investigated further on the chance that point-source control might prove effective in reducing the loadings.

5.2.2 - For Humber River Water Quality Management

High contaminant loadings and frequent Objective exceedances were found at the mouths of Black and Cook creeks. These are small, highly developed catchments containing much industrial land. They seem to offer good opportunities to reduce contaminant loadings through either point-source control or instream treatment.

If accidental releases from industrial areas are of concern, government regulations could be revised to require that industrial sites be drained by a sewer system that permits

- containment of accidental releases of contaminants before they reach receiving waters

- identification of the source of an accidental release of contaminants.

The close association of trace inorganics and total phosphorus with residue particulate (RSP) suggests that containing part or all of a storm's runoff in a settling basin might be effective on Black and Cook creeks. These two catchments are small, have high contaminant loadings, respond quickly to storm runoff, and yield

relatively small volumes of runoff. The suggestion in the pollutographs that many contaminants are washed off early in a storm (the "first flush" effect) indicates that diversion and treatment of initial storm runoff might prove effective at reducing total loadings of some contaminants to the main stem Humber River.

The high levels during the dry events of copper and, to a lesser extent, cadmium at the rural Site 10, suggest that treatment measures designed to reduce contributions of these parameters in the urbanized Humber River might be unlikely to reduce significantly their exceedances of Provincial Water Quality Objectives. It is worth noting that copper concentrations of 0.04 and 0.14 mg/L were found in two wells in the rural Humber watershed (Miller, 1982). Both of these values exceed the Objective of 0.005 mg/L. Thus a significant contribution in natural groundwater in the Upper Humber watershed is suspected.

As explained in Section 5.1, several anomalies in the behavior of water quality parameters have been reported for Black Creek and attributed to the influence of the combined sewer discharge into that watercourse. These sewers should be separated and sanitary sewage should be routed to a treatment facility.

When HSP-F is used to assess the effects of proposed management strategies on the Humber River, it should be calibrated independently for the smaller catchments of interest, such as Black or Cook creeks. This would circumvent the lack of sensitivity of the existing calibrated model for the Humber River that results from the overwhelming importance of tributary loadings. In addition, point-source loadings should be included explicitly in the HSP-F models for the Humber River and Black Creek so that groundwater loadings can be made more physically reasonable. To account for seasonal effects, the model should be calibrated for a period of at least 1 year, and preferably more than one.

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ANNEX 1

WATER QUALITY DATA

NOTES FOR ANNEX 1

1 - Many values are followed by remark codes.

Remark	Description
!LA	No data: sample spoiled in laboratory accident
!SM	No data: sample missing (lost in lab?)
!TX	No data: time limit expired
!UI	No data: undetermined interference
!CR	No data: could not perform confirming reanalysis
!QU	No data: quality controls unacceptable
!CS	No data: contamination suspected
!RI	See attached report (no numeric result) ITCS
<	Actual result is less than the reported value
<=>	Approximate result
<T	This low measurement is tentative, for information only
<W	"Zero", value reported is minimum measurable amount
A>	Approximate result: exceeded normal range limit
P54	PCB resembled Aroclor 1254
P60	PCB resembled Aroclor 1260
U72	Unreliable: sample age exceeds 72
AIN	Approximate result: interference suspected
UCS	Unreliable: contamination suspected
UIC	Unreliable: improper container
NOD	Missing results from MOE report
AIP	Analysis in progress

2. Coded names are used for organic compounds.

Compound Name	Coded Name	Number
Aldrin	ALDR	10
α-BHC Hexachlorocyclohexane	BHCA	11
β-BHC Hexachlorocyclohexane	BHCB	12
γ-BHC Hexachlorocyclohexane	BHCG	13
α-Chlordane	CHLA	14

Compound Name	Coded Name	Number
γ-Chlordane	CHLG	15
Dieldrin	DIEL	16
DMDT Methoxychlor	DMDT	17
Endosulfan I	END1	18
Endosulfan II	END2	19
Endrin	ENDR	20
Endosulfan Sulfate	ENDS	21
Heptachlorepoxide	HEPE	22
Heptachlor	HEPT	23
Mirex	MIRX	24
Oxychlordane	OCHL	25
OP-DDT	OPDT	26
PCB, Total	PCBT	27
PP-DDD	PPDD	28
PP-DDE	PPDE	29
PP-DDT	PPDT	30
2,4,5-Trichlorophenoxyacetic acid	245T	31
2,4-Dichlorophenoxyacetic acid	24D	32
2,4-Dichlorophenoxybutyric acid	24DB	33
2,4-D Propionic acid	24DP	34
Dicamba	DICA	35
Picloram	PICL	36
Silvex	SILV	37
Hexachlorobenzene	HCB	38
2,3,4-Trichlorophenol	234	39
2,3,4,5-Tetrachlorophenol	2345	40
2,3,5,6-Tetrachlorophenol	2356	41
2,4,5-Trichlorophenol	245	42
2,4,6-Trichlorophenol	246	43
Pentachlorophenol	PCPH	44

3. A blank indicates that no sample was analyzed.

4. Several comments pertain to the determinations of minima, maxima, and means.

- No datum with a remark code beginning with "!" was used in determining minima, maxima, and means.

- Approximate values, unreliable values, and values with remark codes beginning with "<" *were* used in determining minima, maxima and means.

- Minima, maxima, and means were not determined for dry events or for the organic parameters. There was only one value from each station during each dry event and there were few instances when an organic parameter was detected frequently enough at a single station for these statistics to be meaningful.

- All means are arithmetic means except for those for fecal coliforms, fecal streptococci, *Pseudomonas aeruginosa* and *Pseudomonas aeruginosa* background. Means for these four parameters are geometric means.

- In many instances, not all samples collected during the wet events were analyzed. However, flow was determined each time a water sample was collected. All these flow values were used to calculate the mean flow at a station during an event. Only flows at the time of collection of the samples ultimately analyzed are reported in these tables, so minimum, maximum and mean flows reported here might not apply to the data immediately above them. This is particularly evident for flows listed with the data on inorganic parameters.

DRY EVENT 1 DATA

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
DRY EVENT 1 - OCTOBER 5,1982

Conventional Water Quality Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 05 10:10	0.14	1.40	0.058	8.39	0.0190	0.045	892.	5.55	

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 05 11:10	1.52	12.50	2.000	7.63	0.0490	0.168	698.	12.60	

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 05 11:30	2.57	0.99	0.048	8.44	0.0060	0.014	442.	2.43	

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 05 11:30	0.38	0.96	0.040	8.25	0.0040	0.028	749.	35.30	

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic mg/L	DOC mg/L C
1 82 10 05 13:20	0.30	2.00	0.004<T	8.22	0.3200	0.450	1075.	9.62	

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 05 12:15	2.36	1.27	0.018	8.51	0.0080	0.022	378.	7.69	

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 05 11:00	2.70	1.21	0.012	8.57	0.0070	0.021	368.	5.70	

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 05 10:00	0.33	1.01	0.018	8.46	0.0040	0.018	455.	3.68	

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 05 10:00	1.68	0.89	0.006	8.33	0.0070	0.027	377.	8.36	

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 05 09:00	2.10	0.94	0.004KT	8.33	0.0080	0.021	373.	12.10	

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 05 11:45	0.13	1.37	0.086	8.38	0.1780	0.225	944.	2.62	

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
DRY EVENT 1 - OCTOBER 5,1982

Bacteria

STATION #1 Taylor Creek @ Don R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 10:10	0.14	4100	390		

STATION #2 Don River @ mouth

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 11:10	1.52	69000	3200		

STATION #3 Humber River @ Bloor St

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 11:30	2.57	520	100<=>		

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 11:30	0.33	740	580		

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 13:30	0.30	1360	220		

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 12:15	2.36	300	340		

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 11:00	2.70	120<=>	100<=>		

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 10:00	0.33	140	50<=>		

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 10:00	1.68	110	120		

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 09:00	2.10	60<=>	40<=>		

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 05 11:45	0.13	1460	180<=>		

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
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Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 05 10:10	0.14	0.0002<	0.005	0.015	0.050<T	0.003	0.003<	0.014

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 05 11:10	1.52	0.0002<	0.013	0.012	0.050<T	0.011	0.051	0.070

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 05 11:30	2.57	0.0002<	0.005	0.007	0.050<T	0.001	0.003<	0.005

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 05 11:30	0.38	0.0002<	0.008	0.017	0.050<T	0.003	0.004	0.023

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 05 13:30	0.30	0.0002<	0.021	0.020	0.050<T	0.004	0.007	0.040

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 05 12:15	2.36	0.0002<	0.004	0.005	0.050<T	0.004	0.003<	0.006

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 05 11:00	2.70	0.0002<	0.002	0.006	0.050<T	0.004	0.003<	0.003

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 05 10:00	0.33	0.0002<	0.002	0.005	0.050<T	0.001<	0.003<	0.001

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 05 10:00	1.68	0.0002<	0.001	0.005	0.050<T	0.002	0.003<	0.003

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 05 09:00	2.10	0.0002<	0.001	0.003	0.050<T	0.001<	0.003<	0.017

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 05 11:45	0.13	0.0020<	0.003	0.011	0.050<T	0.002	0.002	0.014

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
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Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 10:10	0.14	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 11:10	1.52	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 11:30	2.57	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 11:30	0.38	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 13:30	0.30	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 12:15	2.36	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 11:00	2.70	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 10:00	0.33	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 10:00	1.68	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 09:00	2.10	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 05 11:45	0.13	1<W	2	1<W	1	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
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Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 10:10	0.14	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 11:10	1.52	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	470	200<W

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 11:30	2.57	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 11:30	0.38	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 13:30	0.30	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 12:15	2.36	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 11:00	2.70	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 10:00	0.33	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 10:00	1.68	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 09:00	2.10	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 05 11:45	0.13	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
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Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 10:10	0.14	100<W	100<W	0<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 11:10	1.52	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	100

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 11:30	2.57	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 11:30	0.38	100<W	200	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	400

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 13:30	0.30	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 12:15	2.36	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 11:00	2.70	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 10:00	0.33	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 10:00	1.68	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 09:00	2.10	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 05 11:45	0.13	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

WET EVENT 1 DATA

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 1 - OCTOBER 20, 1982

Conventional Water Quality Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 20 07:00	0.13	2.46	0.050	8.08	0.0110	0.026	827.	2.85	
2 82 10 20 13:50	0.15	0.18<T	0.014	8.25	0.0185	0.048	812.	6.92	
3 82 10 20 14:20	0.21	3.80	0.012	8.05	0.0550	0.220	643.	25.40	
4 82 10 20 14:50	0.26	4.56	0.006	7.65	0.0460	0.275	507.	38.40	
5 82 10 20 15:00	0.54	2.16	0.008	8.10	0.0390	0.255	647.	53.70	
6 82 10 20 15:30	0.85	13.40	0.204	7.46	0.0510	0.390	583.	140.00	
Minimum :	0.13	0.18	0.006	7.46	0.0110	0.026	507.	2.85	
Maximum :	1.16	13.40	0.204	8.25	0.0550	0.390	827.	140.00	
Mean :	0.47	4.42	0.049	7.93	0.0367	0.202	670.	44.54	

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 20 07:22	1.82	11.20	1.000	7.90	0.0820	0.195	633.	9.67	
2 82 10 20 13:05	4.25	5.82	0.032	8.38	0.0730	0.190	640.	10.10	
3 82 10 20 14:00	5.56	4.60	1.610	7.91	0.0790	0.195	641.	7.92	
4 82 10 20 15:00	12.96	7.14	0.014	8.29	0.0900	0.180	632.	16.70	
5 82 10 20 16:00	12.50	8.28	0.018	8.00	0.0920	0.373	557.	33.00	
6 82 10 20 16:30	11.17	7.28	0.014	8.91	0.1450	0.730	591.	43.50	
7 82 10 20 17:00	10.96	9.56	0.010	7.99	0.1350	0.695	633.	96.50	
8 82 10 20 17:30	10.00	9.90	0.012	7.41	0.1650	0.920	579.	63.70	
Minimum :	1.82	4.60	0.010	7.41	0.0730	0.180	557.	7.92	
Maximum :	12.96	11.20	1.610	8.91	0.1650	0.920	641.	96.50	
Mean :	8.65	7.97	0.338	8.08	0.1076	0.434	613.	35.13	

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 20 12:30	4.10	0.40<T	0.032	8.28	0.0020<T	0.019	376.	15.50	
2 82 10 20 14:00	4.75	0.68	0.050	8.44	0.0025<T	0.016	379.	5.36	
3 82 10 20 15:00	5.06	1.18	0.030	8.38	0.0020<T	0.019	387.	6.07	
4 82 10 20 15:30	4.10	1.71	0.046	8.51	0.0020<T	0.026	399.	2.79	
Minimum :	4.10	0.40	0.030	8.28	0.0020	0.016	376.	2.79	
Maximum :	5.06	1.71	0.050	8.51	0.0025	0.026	399.	15.50	
Mean :	4.50	0.99	0.039	8.40	0.0021	0.020	385.	7.43	

ATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 10 20 08:39	0.40	0.40<T	0.042	8.29	0.0140	0.027	757.	4.95	
	82 10 20 13:55	0.50	35.30	0.430	7.61	0.1750	1.450	543.	104.00	
	82 10 20 14:22	1.36	19.30	0.056	7.34	0.3500	1.450	370.	90.20	
	82 10 20 14:54	1.35	17.00	0.390	7.43	0.1150	0.580	237.	61.20	
5	82 10 20 15:33	1.86	5.82	0.040	7.83	0.0900	0.198	627.	46.30	
	82 10 20 16:02	1.53	4.50	0.276	8.06	0.1050	0.236	618.	60.40	
	82 10 20 16:29	1.29	7.50	0.040	7.77	0.0820	0.250	561.	37.60	
8	82 10 20 17:00	1.09	6.10	0.282	7.52	0.0540	0.185	558.	4.92	
	Minimum :	0.40	0.40	0.040	7.34	0.0140	0.027	237.	4.92	
	Maximum :	1.86	35.30	0.430	8.29	0.3500	1.450	757.	104.00	
	Mean :	1.17	11.86	0.194	7.73	0.1218	0.545	533.	51.19	

ATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 10 20 09:00	0.23	1.28	0.008	8.38	0.0230	0.130	952.	7.80	
2	82 10 20 13:00	0.35	0.42<T	0.042	8.36	0.0260	0.135	849.	134.00	
	82 10 20 14:00	0.52	26.00	0.038	7.52	0.1050	0.295	642.	28.40	
	82 10 20 14:45	1.46	33.80	1.930	7.33	0.3250	2.400	593.	129.00	
5	82 10 20 15:00	1.74	37.70	5.600	6.99	1.3500	2.600	486.	259.00	
	82 10 20 15:30	3.36	24.70	0.020	7.05	0.1300	0.970	556.	144.00	
	82 10 20 15:45	4.68	5.90	0.026	7.37	0.0510	0.875	558.	302.00	
8	82 10 20 16:30	3.25	11.50	0.006	7.51	0.0280	0.905	426.	295.00	
	Minimum :	0.23	0.42	0.006	6.99	0.0230	0.130	426.	7.80	
	Maximum :	4.68	37.70	5.600	8.38	1.3500	2.600	952.	302.00	
	Mean :	1.94	17.66	0.958	7.56	0.2547	1.033	632.	158.65	

ATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 10 20 08:26	2.91	0.70	0.020	8.45	0.0040	0.027	390.	11.90	
2	82 10 20 14:15	3.39	0.26<T	0.016	8.27	0.0040	0.031	357.	10.10	
	82 10 20 15:15	3.59	1.04	0.010	8.47	0.0140	0.065	374.	11.90	
	82 10 20 16:10	4.57	0.10<T	0.014	8.40	0.0095	0.034	369.	9.87	
5	82 10 20 16:40	4.19	1.38	0.012	7.94	0.0120	0.060	396.	14.10	
	82 10 20 17:50	4.74	1.91	0.022	8.08	0.0080	0.043	399.	17.00	
	82 10 20 18:25	4.95	1.39	0.016	8.30	0.0110	0.045	371.	19.10	
8	82 10 20 19:30	4.67	1.40	0.012	8.31	0.0065	0.030	374.	20.20	
	Minimum :	2.91	0.10	0.010	7.94	0.0040	0.027	357.	9.87	
	Maximum :	4.95	1.91	0.022	8.47	0.0140	0.065	396.	20.20	
	Mean :	4.12	1.08	0.015	8.27	0.0086	0.041	377.	14.27	

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 20 08:00	3.11	0.00!TX	0.012	8.33	0.0055	0.015	367.	9.23	
2 82 10 20 14:05	3.17	2.66	0.004<T	8.44	0.0130	0.020	356.	11.30	
3 82 10 20 15:05	3.44	0.84	0.026	8.46	0.0070	0.027	364.	9.15	
4 82 10 20 16:05	3.73	1.09	0.022	8.49	0.0060	0.038	372.	8.29	
5 82 10 20 16:35	3.81	1.40	0.024	8.57	0.0065	0.035	357.	21.60	
6 82 10 20 17:15	4.50	1.02	0.020	8.54	0.0060	0.030	353.	19.70	
7 82 10 20 17:45	5.03	1.15	0.014	8.52	0.0075	0.038	349.	8.20	
8 82 10 20 18:55	4.38	1.18	0.010	8.45	0.0065	0.038	351.	21.90	
Minimum :	3.11	0.84	0.004	8.33	0.0055	0.015	349.	8.20	
Maximum :	5.03	2.66	0.026	8.57	0.0130	0.038	372.	21.90	
Mean :	3.95	1.33	0.016	8.47	0.0072	0.030	358.	13.67	

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 20 08:17	0.40	1.13	0.012	8.53	0.0045	0.021	439.	9.96	
2 82 10 20 14:10	0.56	0.16<T	0.024	8.39	0.0030	0.024	418.	4.99	
3 82 10 20 14:40	0.64	2.99	0.006	8.53	0.0435	0.035	392.	11.70	
4 82 10 20 15:40	1.04	2.14	0.008	8.22	0.0085	0.047	345.	11.10	
5 82 10 20 16:10	1.05	9.00	0.032	8.15	0.0035	0.063	410.	24.70	
6 82 10 20 16:40	0.70	11.40	0.024	8.20	0.0035	0.075	377.	23.40	
7 82 10 20 17:10	0.77	3.30	0.026	8.18	0.0055	0.055	335.	6.31	
8 82 10 20 17:40	0.68	5.37	0.026	8.30	0.0040	0.047	340.	5.09	
Minimum :	0.40	0.16	0.006	8.15	0.0030	0.021	335.	4.99	
Maximum :	1.05	11.40	0.032	8.53	0.0435	0.075	439.	24.70	
Mean :	0.75	5.06	0.019	8.31	0.0095	0.052	383.	12.03	

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 20 08:17	1.92	0.33<T	0.004<T	8.41	0.0030	0.031	327.	34.00	
2 82 10 20 13:55	1.89	0.34<T	0.012	8.47	0.0030	0.029	331.	18.30	
3 82 10 20 14:55	2.63	0.85	0.024	8.54	0.0125	0.034	349.	15.50	
4 82 10 20 15:25	3.36	4.40	0.006	8.27	0.1500	1.430	0.13M	0.0013M	
5 82 10 20 16:25	2.89	2.86	0.226	8.11	0.1200	0.455	326.	142.00	
6 82 10 20 16:55	2.50	2.16	0.172	8.40	0.0850	0.227	319.	79.30	
7 82 10 20 17:25	2.26	1.54	0.112	8.33	0.0560	0.115	324.	41.50	
8 82 10 20 17:55	2.13	0.40<T	0.080	8.55	0.0410	0.079	334.	37.70	
Minimum :	1.89	0.33	0.004	8.11	0.0030	0.029	319.	15.50	
Maximum :	3.36	4.40	0.226	8.55	0.1500	1.430	349.	142.00	
Mean :	2.45	1.61	0.079	8.38	0.0588	0.300	330.	51.25	

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 10 20 07:20	2.49	0.16<T	0.010	8.46	0.0035	0.026	353.	19.10	
2	82 10 20 10:50		0.44<T	0.026	8.40	0.0010<T	0.035	347.	11.20	
	82 10 20 13:45	2.49	0.34<T	0.022	8.41	0.0025<T	0.019	354.	9.92	
	82 10 20 14:40	2.55	0.08<T	0.018	8.30	0.0025<T	0.018	338.	10.10	
5	82 10 20 15:50	2.67	0.32<T	0.028	8.41	0.0020<T	0.030	352.	8.37	
6	82 10 20 16:25	2.67	0.17<T	0.006	8.44	0.0035	0.038	351.	13.90	
	82 10 20 17:35	2.61	0.56	0.008	8.44	0.0035<T	0.031	349.	11.00	
8	82 10 20 18:00	2.61	0.62	0.016	8.48	0.0030	0.031	349.	7.87	
	Minimum :	2.49	0.08	0.006	8.30	0.0010	0.018	338.	7.87	
	Maximum :	2.67	0.62	0.028	8.48	0.0035	0.038	354.	19.10	
	Mean :	2.58	0.33	0.016	8.41	0.0026	0.029	349.	11.44	

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
	82 10 20 08:35	0.11	0.72	0.040	8.26	0.0180	0.042	764.	4.69	
2	82 10 20 13:40	0.17	9.40	0.278	8.35	0.0450	0.112	647.	51.00	
	82 10 20 14:30	0.88	18.20	0.296	7.66	0.0700	0.202	521.	27.00	
	82 10 20 14:45	1.96	13.30	0.690	7.94	0.0550	1.150	506.	572.00	
5	82 10 20 15:00	1.84	13.10	0.730	7.13	0.1300	1.500	511.	517.00	
6	82 10 20 15:15	1.76	19.80	0.570	7.09	0.0500	0.875	463.	447.00	
	82 10 20 16:15	1.33	7.16	0.078	7.90	0.0950	0.475	308.	176.00	
	82 10 20 17:15	0.62	5.22	0.014	8.09	0.0755	0.243	321.	67.30	
	Minimum :	0.11	0.72	0.014	7.09	0.0180	0.042	308.	4.69	
	Maximum :	1.96	19.80	0.730	8.35	0.1300	1.500	764.	572.00	
	Mean :	1.08	10.87	0.337	7.80	0.0673	0.574	512.	232.74	

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 1 - OCTOBER 20, 1982

Bacteria

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1 82 10 20 07:00	0.13	4400A>	380		
2 82 10 20 13:50	0.15	12300	2000		
3 82 10 20 14:20	0.21	1900A>	9400		
4 82 10 20 14:50	0.26	21000	10000		
5 82 10 20 15:00	0.54	4300	2200		
6 82 10 20 15:30	0.85	27000	9700		
Minimum :	0.13	1900	380		
Maximum :	1.16	27000	10000		
Mean :	0.47	7941	3393		

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1 82 10 20 07:22	1.82	3900	1400		
2 82 10 20 13:05	4.25	1900	400<=>		
3 82 10 20 14:00	5.56	1500	200<=>		
4 82 10 20 15:00	12.96	2300	400<=>		
5 82 10 20 16:00	12.50	73000	34000		
6 82 10 20 16:30	11.17	210000A>	9900		
7 82 10 20 17:00	10.96	18000A>	7700		
8 82 10 20 17:30	10.00	55000	19000		
Minimum :	1.82	1500	200		
Maximum :	12.96	210000	34000		
Mean :	8.65	11847	2618		

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1 82 10 20 12:30	4.10	340	60<=>		
2 82 10 20 14:00	4.75	440	80<=>		
3 82 10 20 15:00	5.06	1120	4600A>		
4 82 10 20 15:30	4.10	4000A>	3900A>		
Minimum :	4.10	340	60		
Maximum :	5.06	4000	4600		
Mean :	4.50	905	539		

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 20 08:39	0.40	620	620		
2	82 10 20 13:58	0.50	19000	21000		
3	82 10 20 14:22	1.36	4900	16000A>		
4	82 10 20 14:54	1.35	8500	59000		
5	82 10 20 15:33	1.86	6300	10900		
6	82 10 20 16:02	1.53	7500	14000		
7	82 10 20 16:29	1.29	6700	13100		
8	82 10 20 17:00	1.09	6900	13000		
	Minimum :	0.40	620	620		
	Maximum :	1.86	19000	59000		
	Mean :	1.17	5672	11562		

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 20 09:00	0.23	2600	700(=)		
2	82 10 20 13:00	0.35	1100	800(=)		
3	82 10 20 14:00	0.52	60000A>	13600A>		
4	82 10 20 14:45	1.46	2400000A>	230000A>		
5	82 10 20 15:00	1.74	240000A>	80000A>		
6	82 10 20 15:30	3.36	139000	1110000A>		
7	82 10 20 15:45	4.68	30000A>	32000A>		
8	82 10 20 16:30	3.25	6100	32000		
	Minimum :	0.23	1100	700		
	Maximum :	4.68	2400000	1110000		
	Mean :	1.94	40114	25135		

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 20 08:26	2.91	160(=)	100(=)		
2	82 10 20 14:15	3.39	260	1060		
3	82 10 20 15:15	3.59	580	860		
4	82 10 20 16:10	4.57	9200A>	4200A>		
5	82 10 20 16:40	4.19	8400A>	4600A>		
6	82 10 20 17:50	4.74	4800A>	2200		
7	82 10 20 18:25	4.95	1900	1740		
8	82 10 20 19:30	4.67	2240	1460		
	Minimum :	2.91	160	100		
	Maximum :	4.95	9200	4600		
	Mean :	4.12	1576	1331		

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 20 08:00	3.11	200	60<=>		
2	82 10 20 14:05	3.17	2420	960		
3	82 10 20 15:05	3.44	540	960		
4	82 10 20 16:05	3.73	780	1660		
5	82 10 20 16:35	3.81	1620	3800A>		
6	82 10 20 17:15	4.50	1960	4400A>		
7	82 10 20 17:45	5.03	1660	2940		
8	82 10 20 18:55	4.88	2960	2600		
	Minimum :	3.11	200	60		
	Maximum :	5.03	2960	4400		
	Mean :	3.95	1156	1360		

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 20 08:17	0.40	120<=>	100<=>		
2	82 10 20 14:10	0.56	1980	3220A>		
3	82 10 20 14:40	0.64	6800A>	15200A>		
4	82 10 20 15:40	1.04	9100	13000		
5	82 10 20 16:10	1.05	4900	19000A>		
6	82 10 20 16:40	0.90	1800	7500		
7	82 10 20 17:10	0.77	3800	5500		
8	82 10 20 17:40	0.68	3300	3700		
	Minimum :	0.40	120	100		
	Maximum :	1.05	9100	19000		
	Mean :	0.75	2520	4553		

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 20 08:17	1.92	120<=>	120<=>		
2	82 10 20 13:55	1.89	580	980		
3	82 10 20 14:55	2.63	940	3800A>		
4	82 10 20 15:25	3.36	4100	9000<=>		
5	82 10 20 16:25	2.89	4700	25000A>		
6	82 10 20 16:55	2.50	1700	5000<=>		
7	82 10 20 17:25	2.26	3600	6300		
8	82 10 20 17:55	2.18	1700	2700		
	Minimum :	1.89	120	120		
	Maximum :	3.36	4700	25000		
	Mean :	2.45	1380	3101		

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 20 07:20	2.49	20<=>	40<=>		
2	82 10 20 10:50		260	600		
3	82 10 20 13:45	2.49	20<=>	40<=>		
4	82 10 20 14:40	2.55	100<=>	40<=>		
5	82 10 20 15:50	2.67	140<=>	260		
6	82 10 20 16:25	2.67	160<=>	460		
7	82 10 20 17:35	2.61	760	2020		
8	82 10 20 18:00	2.61	1300<=>	3200A>		
	Minimum :	2.49	20	40		
	Maximum :	2.67	1300	3200		
	Mean :	2.58	148	276		

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 20 08:35	0.11	420	440		
2	82 10 20 13:40	0.17	1300	9200A>		
3	82 10 20 14:30	0.89	2700	3600A>		
4	82 10 20 14:45	1.96	8500	7000<=>		
5	82 10 20 15:00	1.34	4300	31000A>		
6	82 10 20 15:15	1.76	4100	14000		
7	82 10 20 16:15	1.33	3700	11000		
8	82 10 20 17:15	0.62	3300	17000		
	Minimum :	0.11	420	440		
	Maximum :	1.96	8500	31000		
	Mean :	1.09	2685	7324		

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 1 - OCTOBER 20, 1982

Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 20 07:00	0.13	0.0007	0.007	0.017	0.020<	0.002	0.017	0.032
5 82 10 20 15:00	0.54	0.0010	0.005	0.022	0.020	0.002	0.039	0.090
7 82 10 20 16:00	1.16	0.0004	0.012	0.025	0.000	0.005	0.030	0.077
Minimum :	0.13	0.0004	0.005	0.017	0.000	0.002	0.017	0.032
Maximum :	1.16	0.0010	0.012	0.025	0.020	0.005	0.039	0.090
Mean :	0.47	0.0007	0.008	0.021	0.013	0.003	0.028	0.066

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 20 07:22	1.82	0.0009	0.007	0.010	0.020	0.067	0.020	0.066
4 82 10 20 15:00	12.96	0.0008	0.005	0.130	0.020	0.038	0.029	0.097
7 82 10 20 17:00	10.96	0.0004	0.014	0.024	0.070	0.020	0.032	0.640
Minimum :	1.82	0.0004	0.005	0.010	0.020	0.020	0.020	0.066
Maximum :	12.96	0.0008	0.014	0.130	0.070	0.067	0.032	0.640
Mean :	8.65	0.0006	0.008	0.054	0.036	0.041	0.027	0.267

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 20 12:30	4.10	0.0007	0.002	0.006	0.020<	0.001<	0.011	0.005
3 82 10 20 15:00	5.06	0.0006	0.001	0.015	0.020<	0.001<	0.013	0.029
Minimum :	4.10	0.0006	0.001	0.006	0.020	0.001	0.011	0.005
Maximum :	5.06	0.0007	0.002	0.015	0.020	0.001	0.013	0.029
Mean :	4.50	0.0006	0.001	0.010	0.020	0.001	0.012	0.017

STATION #4 Mimico Creek @ mouth

Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 20 08:39	0.40	0.0002<	0.045	0.019	0.020<	0.056	0.004	0.084
5 82 10 20 15:33	1.86	0.0004	0.025	0.022	0.020<	0.015	0.031	0.050
82 10 20 17:00	1.09	0.0010	0.005	0.022	0.020	0.002	0.042	0.082
Minimum :	0.40	0.0002	0.005	0.019	0.020	0.002	0.004	0.050
Maximum :	1.86	0.0010	0.045	0.022	0.020	0.056	0.042	0.084
Mean :	1.17	0.0005	0.025	0.021	0.020	0.024	0.025	0.072

STATION #5 Black Creek @ Scarlett Rd

Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
82 10 20 09:00	0.23	0.0005	0.007	0.015	0.020	0.018	0.006	0.034
82 10 20 14:00	0.52	0.0007	0.011	0.017	0.030	0.009	0.033	0.056
5 82 10 20 15:00	1.74	0.0018	0.020	0.072	0.260UCS	0.015	0.200	0.320
8 82 10 20 16:30	3.25	0.0016	0.043	0.051	0.200UCS	0.018	0.180	0.250
Minimum :	0.23	0.0005	0.007	0.015	0.020	0.009	0.006	0.034
Maximum :	4.68	0.0018	0.043	0.072	0.260	0.018	0.200	0.320
Mean :	1.94	0.0011	0.020	0.038	0.127	0.015	0.104	0.165

STATION #6 Humber River @ Scarlett Rd

Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 20 08:26	2.91	0.0006	0.003	0.008	0.020<	0.001	0.003<	0.033
82 10 20 15:15	3.59	0.0002	0.003	0.007	0.020<	0.002	0.006	0.015
82 10 20 16:10	4.57	0.0002<	0.004	0.009	0.020<	0.003	0.009	0.015
7 82 10 20 18:25	4.95	0.0002	0.003	0.010	0.020<	0.002	0.013	0.025
Minimum :	2.91	0.0002	0.003	0.007	0.020	0.001	0.003	0.015
Maximum :	4.95	0.0006	0.004	0.010	0.020	0.003	0.013	0.033
Mean :	4.12	0.0003	0.003	0.008	0.020	0.002	0.007	0.023

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 20 08:00	3.11	0.0002<	0.002	0.007	0.020<	0.001	0.003<	0.009
3 82 10 20 15:05	3.44	0.0002<	0.002	0.009	0.020<	0.002	0.008	0.010
7 82 10 20 17:45	5.03	0.0002<	0.003	0.010	0.020<	0.002	0.011	0.029
9 82 10 20 18:55	4.88	0.0002<	0.003	0.008	0.020<	0.002	0.011	0.020
Minimum :	3.11	0.0002	0.002	0.007	0.020	0.001	0.003	0.009
Maximum :	5.03	0.0002	0.003	0.010	0.020	0.002	0.011	0.029
Mean :	3.95	0.0002	0.002	0.008	0.020	0.001	0.008	0.017

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 20 08:17	0.40	0.0002	0.003	0.010	0.020<	0.002	0.004	0.005
3 82 10 20 14:40	0.64	0.0002<	0.004	0.010	0.020<	0.002	0.022	0.017
6 82 10 20 16:40	0.90	0.0002	0.003	0.013	0.020	0.003	0.022	0.039
8 82 10 20 17:40	0.63	0.0002	0.003	0.008	0.020<	0.003	0.017	0.012
Minimum :	0.40	0.0002	0.003	0.008	0.020	0.002	0.004	0.005
Maximum :	1.05	0.0002	0.004	0.013	0.020	0.003	0.022	0.039
Mean :	0.75	0.0002	0.003	0.010	0.020	0.002	0.016	0.018

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 10 20 08:17	1.92	0.0002<	0.002	0.005	0.020<	0.002	0.003<	0.001
3 82 10 20 14:55	2.63	0.0002<	0.006	0.006	0.020<	0.002	0.007	0.004
6 82 10 20 16:55	2.50	0.0003	0.014	0.014	0.020	0.005	0.026	0.044
9 82 10 20 17:55	2.18	0.0002	0.006	0.009	0.020<	0.003	0.013	0.018
Minimum :	1.89	0.0002	0.002	0.005	0.020	0.002	0.003	0.001
Maximum :	3.36	0.0003	0.014	0.014	0.020	0.005	0.026	0.044
Mean :	2.45	0.0002	0.007	0.008	0.020	0.003	0.012	0.016

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 20 07:20	2.49	0.0002<	0.002	0.006	0.020<	0.001<	0.003<	0.003
2	82 10 20 10:50		0.0006	0.002	0.006	0.020<	0.001<	0.017	0.002
6	82 10 20 16:25	2.67	0.0002<	0.002	0.008	0.020<	0.001	0.004	0.003
8	82 10 20 18:00	2.61	0.0002<	0.002	0.007	0.020<	0.001<	0.003	0.046
	Minimum :	2.49	0.0002	0.002	0.006	0.020	0.001	0.003	0.002
	Maximum :	2.67	0.0006	0.002	0.008	0.020	0.001	0.017	0.046
	Mean :	2.58	0.0003	0.002	0.006	0.020	0.001	0.006	0.014

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 20 08:35	0.11	0.0003	0.004	0.012	0.020<	0.004	0.006	0.052
3	82 10 20 14:30	0.88	0.0006	0.008	0.026	0.030	0.016	0.070	0.110
6	82 10 20 15:15	1.76	0.0017	0.023	0.070	0.080	0.018	0.310	0.430
8	82 10 20 17:15	0.62	0.0005	0.005	0.021	0.290UCS	0.005	0.060	0.150
	Minimum :	0.11	0.0003	0.004	0.012	0.020	0.004	0.006	0.052
	Maximum :	1.96	0.0017	0.023	0.070	0.290	0.018	0.310	0.430
	Mean :	1.08	0.0007	0.010	0.032	0.105	0.010	0.111	0.185

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 1 - OCTOBER 20, 1982

Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
5 82 10 20 15:00	0.54	1<W	6	1<W	49	11	3	2<W	5<W	2<W	4<W	4<W	4<W
7 82 10 20 16:00	1.16	1<W	20	20	44	12	4	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			6	20	44	11	3						
Max. detected :			20	20	49	12	4						
No. detected :		0	2	1	2	2	2	0	0	0	0	0	0

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
4 82 10 20 15:00	12.96	1<W	4	12	10	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
7 82 10 20 17:00	10.96	1<W	1<W	1<W	0<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			4	12	10								
Max. detected :			4	12	10								
No. detected :		0	1	1	1	0	0	0	0	0	0	0	0

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3 82 10 20 15:00	5.06	1<W	4	1<W	1<W	2<W	2<W	2<W	0<W	2<W	4<W	4<W	4<W
Min. detected :			4										
Max. detected :			4										
No. detected :		0	1	0	0	0	0	0	0	0	0	0	0

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
5	82 10 20 15:33	1.86	1<W	12	10	4	6	2	2<W	5<W	2<W	4<W	4<W	4<W
	82 10 20 17:00	1.09	1<W	12	1<W	4	2<W	2<W	2<W	55<W	2<W	4<W	4<W	4<W
Min. detected :				12	10	4	6	2						
Max. detected :				12	10	4	6	2						
No. detected :			0	2	1	2	1	1	0	0	0	0	0	0

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3	82 10 20 14:00	0.52	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
	82 10 20 15:00	1.74	1<W	10	10	6	20	14	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :				10	10	6	20	14						
Max. detected :				10	10	6	20	14						
No. detected :			0	1	1	1	1	1	0	0	0	0	0	0

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
	82 10 20 15:15	3.59	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
	82 10 20 16:10	4.57	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA
Min. detected :														
Max. detected :														
No. detected :			0	0	0	0	0	0	0	0	0	0	0	0

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
	82 10 20 15:05	3.44	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
	82 10 20 17:45	5.03	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :				2										
Max. detected :				4										
No. detected :			0	2	0	0	0	0	0	0	0	0	0	0

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 EN ng/L
3 82 10 20 14:40	0.64	1<W	3	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 82 10 20 16:40	0.70	1<W	6	1<W	2	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4
Min. detected :			3		2								
Max. detected :			6		2								
No. detected :		0	2	0	1	0	0	0	0	0	0	0	0

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 END ng/L
3 82 10 20 14:55	2.63	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 82 10 20 16:55	2.50	1<W	3	1<W	4	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			3		4								
Max. detected :			3		4								
No. detected :		0	1	0	1	0	0	0	0	0	0	0	0

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
2 82 10 20 10:50		1<W	2	1<W	3	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 82 10 20 16:25	2.67	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			2		3								
Max. detected :			2		3								
No. detected :		0	1	0	1	0	0	0	0	0	0	0	0

STATION #11 Black Creek @ Laurence Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3 82 10 20 14:30	0.88	1<W	8	5	8	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 82 10 20 15:15	1.76	1<W	13	8	6	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			8	5	6								
Max. detected :			13	8	8								
No. detected :		0	2	2	2	0	0	0	0	0	0	0	0

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
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Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
5 82 10 20 15:00	0.54	1<W	1<W	5<W	2<W	5<W	25P54	5<W	1<W	5<W	50<W	425	200<W
7 82 10 20 16:00	1.16	1<W	1<W	5<W	2<W	5<W	20<W	0<W	1<W	0<W	50<W	100<W	200<W
Min. detected :							25					425	
Max. detected :							25					425	
No. detected :		0	0	0	0	0	1	0	0	0	0	1	0

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
4 82 10 20 15:00	12.96	1<W	1<W	5<W	2<W	5<W	25P54	5<W	1<W	5<W	50<W	100<W	200<W
7 82 10 20 17:00	10.96	1<W	1<W	5<W	2<W	5<W	75P54	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :							25						
Max. detected :							75						
No. detected :		0	0	0	0	0	2	0	0	0	0	0	0

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
3 82 10 20 15:00	5.06	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :													
Max. detected :													
No. detected :		0	0	0	0	0	0	0	0	0	0	0	0

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
5 82 10 20 15:33	1.86	1<W	1<W	5<W	2<W	5<W	100P60	5<W	1<W	5<W	50<W	100<W	200<W
8 82 10 20 17:00	1.09	1<W	1<W	5<W	2<W	5<W	0!UI	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :							100						
Max. detected :							100						
No. detected :		0	0	0	0	0	1	0	0	0	0	0	0

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
3 82 10 20 14:00	0.52	1<W	1<W	5<W	2<W	5<W	0!UI	5<W	1<W	5<W	50<W	100<W	200<W
5 82 10 20 15:00	1.74	1<W	1<W	5<W	2<W	0<W	0!UI	0<W	0<W	0<W	50<W	100<W	200<W
Min. detected :													
Max. detected :													
No. detected :		0	0	0	0	0	0	0	0	0	0	0	0

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
3 82 10 20 15:15	3.59	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
4 82 10 20 16:10	4.57	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	50<W	190	200<W
Min. detected :												190	
Max. detected :												190	
No. detected :		0	0	0	0	0	0	0	0	0	0	1	0

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
3 82 10 20 15:05	3.44	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
7 82 10 20 17:45	5.03	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	220	200<W
Min. detected :												220	
Max. detected :												220	
No. detected :		0	0	0	0	0	0	0	0	0	0	1	0

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
3 82 10 20 14:40	0.64	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	410	200<W
6 82 10 20 16:40	0.90	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :												410	
Max. detected :												410	
No. detected :		0	0	0	0	0	0	0	0	0	0	1	0

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
3 82 10 20 14:55	2.63	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
6 82 10 20 16:55	2.50	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :													
Max. detected :													
No. detected :		0	0	0	0	0	0	0	0	0	0	0	0

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
2 82 10 20 10:50		1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
6 82 10 20 16:25	2.67	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :													
Max. detected :													
No. detected :		0	0	0	0	0	0	0	0	0	0	0	0

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
3 82 10 20 14:30	0.88	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	430	200<W
6 82 10 20 15:15	1.76	1<W	1<W	5<W	2<W	5<W	20<W	5<W	0<W	5<W	50<W	210	200<W
Min. detected :												210	
Max. detected :												430	
No. detected :		0	0	0	0	0	0	0	0	0	0	2	0

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 1 - OCTOBER 20, 1982

Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
5 82 10 20 15:00	0.54	430	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W
7 82 10 20 16:00	1.16	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :		430				1						
Max. detected :		430				1						
No. detected :		1	0	0	0	1	0	0	0	0	0	0

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
4 82 10 20 15:00	12.96	100<W	100<W	100<W	50<W	28	100<W	50<W	50<W	50<W	50<W	50<W
7 82 10 20 17:00	10.96	100<W	100<W	100<W	50<W	7	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :						7						
Max. detected :						28						
No. detected :		0	0	0	0	2	0	0	0	0	0	0

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 10 20 15:00	5.06	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												
Max. detected :												
No. detected :		0	0	0	0	0	0	0	0	0	0	0

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
5 82 10 20 15:33	1.36	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
8 82 10 20 17:00	1.09	100<W	100<W	100<W	50<W	5	100<W	50<W	50<W	50<W	50<W	80
Min. detected :						5						80
Max. detected :						5						80
No. detected :		0	0	0	0	1	0	0	0	0	0	1

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 10 20 14:00	0.52	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
5 82 10 20 15:00	1.74	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :						1						
Max. detected :						1						
No. detected :		0	0	0	0	1	0	0	0	0	0	0

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 10 20 15:15	3.59	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
4 82 10 20 16:10	4.57	100<W	100<W	100<W	50<W	0!LA	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												
Max. detected :												
No. detected :		0	0	0	0	0	0	0	0	0	0	0

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 10 20 15:05	3.44	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
7 82 10 20 17:45	5.03	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :						1						
Max. detected :						1						
No. detected :		0	0	0	0	1	0	0	0	0	0	0

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 10 20 14:40	0.64	260	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	80
6 82 10 20 16:40	0.90	100<W	100<W	100<W	50<W	3	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :		260				2						80
Max. detected :		260				3						80
No. detected :		1	0	0	0	2	0	0	0	0	0	1

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 10 20 14:55	2.63	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W
6 82 10 20 16:55	2.50	100<W	100<W	100<W	120	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :					120	1						
Max. detected :					120	1						
No. detected :		0	0	0	1	1	0	0	0	0	0	0

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
2 82 10 20 10:50		100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
6 82 10 20 16:25	2.67	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												
Max. detected :												
No. detected :		0	0	0	0	0	0	0	0	0	0	0

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 10 20 14:30	0.88	100<W	100<W	100<W	50	14	100<W	50<W	50<W	50<W	50<W	50<W
6 82 10 20 15:15	1.76	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :					50	14						
Max. detected :					50	14						
No. detected :		0	0	0	1	1	0	0	0	0	0	0

DRY EVENT 2 DATA

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

WATER QUALITY DATA

DRY EVENT 2 - OCTOBER 26, 1982

Conventional Water Quality Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 26 13:50	0.15	0.54	0.044	8.14	0.0140	0.032	350.	4.38	

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 26 14:15	1.78	4.67	0.790	7.46	0.0740	0.322	693.	12.00	

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 26 15:25	3.79	0.96	0.040	8.47	0.0025<T	0.025	417.	3.00	

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 26 14:50	0.41	0.91	0.090	8.29	0.0050	0.016	700.	16.20	

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 10 26 11:45	0.25	1.50	0.008	8.36	0.0550	0.093	731.	7.50	

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 10 26 11:30	2.59	0.78	0.052	8.44	0.0030	0.020	367.	17.50	

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 10 26 10:45	2.76	1.02	0.048	8.47	0.0035	0.021	347.	13.90	

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 10 26 09:50	0.41	0.36<T	0.028	8.50	0.0030	0.018	407.	1.36	

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 10 26 09:50	1.67	0.75	0.036	8.48	0.0045	0.019	385.	3.00	

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 10 26 09:55	2.30	0.79	0.018	8.46	0.0035	0.013	347.	20.30	

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 10 26 11:10	0.10	1.49	0.044	8.13	0.0170	0.113	300.	23.00	

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

WATER QUALITY DATA

DRY EVENT 2 - OCTOBER 26, 1982

Bacteria

STATION #1 Taylor Creek @ Don R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 13:50	0.15	1060	120<=>		

STATION #2 Don River @ mouth

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 14:15	1.78	6700	320		

STATION #3 Humber River @ Bloor St

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 15:25	3.79	140<=>	80<=>		

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 14:50	0.41	220	140<=>		

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 11:45	0.25	4300	240		

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 11:30	2.59	30(<=)	20(<=)		

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 10:45	2.76	20(<=)	30(<=)		

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 09:50	0.41	30(<=)	40(<=)		

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 09:50	1.67	60(<=)	40(<=)		

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 09:55	2.30	50(<=)	10(<=)		

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 10 26 11:10	0.10	420	240		

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
DRY EVENT 2 - OCTOBER 26, 1982

Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 13:50	0.15	0.0006	0.004	0.013	0.0001CR	0.003	0.005	0.013

STATION #2 Don River @ mouth

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 14:15	1.78	0.0004	0.008	0.014	0.030<	0.012	0.013	0.035

STATION #3 Humber River @ Bloor St

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 15:25	3.79	0.0002<	0.004	0.008	0.020<	0.004	0.003<	0.007

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 14:50	0.41	0.0003	0.005	0.012	0.030<	0.002	0.008	0.032

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 11:45	0.25	0.0005	0.037	0.017	0.030	0.015	0.005	0.040

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 11:30	2.59	0.0003	0.005	0.007	0.030<	0.005	0.008	0.042

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 10:45	2.76	0.0003	0.002	0.006	0.030<	0.005	0.004	0.004

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 09:50	0.41	0.0004	0.003	0.011	0.030<	0.001	0.005	0.002

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 09:50	1.67	0.0003	0.002	0.007	0.030<	0.002	0.003<	0.003

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 09:55	2.30	0.0004	0.002	0.006	0.030<	0.001<	0.004	0.014

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 10 26 11:10	0.10	0.0005	0.007	0.016	0.030<	0.003	0.014	0.030

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
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Pesticides and Organic Parameters

TATION #1 Taylor Creek @ Don R

Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 26 13:50	0.15	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	0<9U	4<W	0<9U

TATION #2 Don River @ mouth

Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 26 14:15	1.78	1<W	7	5	12	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

TATION #3 Humber River @ Bloor St

Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 26 15:25	3.79	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	0<9U	4<W	0<9U

TATION #4 Mimico Creek @ mouth

Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 26 14:50	0.41	1<W	7	7	4	4	2<W	2<W	5<W	2<W	0<9U	4<W	0<9U

TATION #5 Black Creek @ Scarlett Rd

Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 10 26 11:45	0.25	1<W	2	1<W	2	2<W	2<W	2<W	5<W	2<W	0<9U	4<W	0<9U

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDO ng/L
1 82 10 26 11:30	2.59	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	0!GU	4<W	0!GU

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDO ng/L
1 82 10 26 10:45	2.76	1<W	2	1<W	5	2<W	2<W	2<W	5<W	2<W	0!GU	4<W	0!GU

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDO ng/L
1 82 10 26 09:50	0.41	1<W	4	1<W	5	2<W	2<W	2<W	5<W	2<W	0!GU	4<W	0!GU

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDO ng/L
1 82 10 26 09:50	1.67	1<W	2	1<W	3	2<W	2<W	2<W	5<W	2<W	0!GU	4<W	0!GU

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDO ng/L
1 82 10 26 09:55	2.20	1<W	10	1<W	1<W	2<W	2<W	2<W	5<W	2<W	[illegible]	[illegible]	[illegible]

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDO ng/L
1 82 10 26 11:10	0.10	1<W	4	1<W	5	2<W	2<W	2<W	5<W	2<W	0!GU	4<W	0!GU

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
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Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DD ng/L
1 82 10 26 13:50	0.15	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 26 14:15	1.78	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 26 15:25	3.79	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	0<W	50<W	100<W	200<W

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DD ng/L
1 82 10 26 14:50	0.41	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DD ng/L
1 82 10 26 11:45	0.25	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 26 11:30	2.59	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 26 10:45	2.76	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 26 09:50	0.41	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 26 09:50	1.67	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 26 09:55	2.30	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 82 10 26 11:10	0.10	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	230	200<W

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
DRY EVENT 2 - OCTOBER 26, 1982

Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 26 13:50	0.15	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 26 14:15	1.78	100<W	100<W	100<W	50<W	3	100<W	50<W	50<W	50<W	50<W	50<W

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 26 15:25	3.79	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 26 14:50	0.41	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	210

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 10 26 11:45	0.25	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	82 10 26 11:30	2.59	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	82 10 26 10:45	2.76	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	82 10 26 09:50	0.41	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	82 10 26 09:50	1.67	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	82 10 26 09:55	2.30	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	82 10 26 11:10	0.10	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W

WET EVENT 2 DATA

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 2 - NOVEMBER 3 TO NOVEMBER 5, 1982

Conventional Water Quality Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 16:00	0.32	1.08	0.002<T	8.32	0.0480	0.083	419.	6.90	
2 82 11 03 17:00	0.33	0.79	0.002<T	8.25	0.0490	0.093	231.	7.24	
3 82 11 03 18:00	0.40	1.17	0.002<T	8.24	0.0490	0.110	436.	14.30	
4 82 11 03 19:00	0.52	1.49	0.002<T	8.27	0.0560	0.115	445.	17.20	
5 82 11 03 21:00	0.74	1.90	0.006	8.45	0.0650	0.147	394.	33.20	
6 82 11 03 23:00	1.43	2.80	0.018	8.04	0.0530	0.230	343.	81.10	
7 82 11 04 01:00	2.04	2.48	0.004	7.95	0.0630	0.400	220.	150.00	
8 82 11 04 03:20	2.04	2.02	0.026	7.93	0.0900	0.280	159.	170.00	
9 82 11 04 14:05	1.27	1.46	0.034	7.78	0.0530	0.160	231.	66.90	
Minimum :	0.32	0.79	0.002	7.78	0.0480	0.083	159.	6.90	
Maximum :	2.04	2.80	0.034	8.45	0.0900	0.400	445.	170.00	
Mean :	1.01	1.68	0.010	8.13	0.0584	0.179	319.	60.76	

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 19:30	9.22	2.16	0.004<T	8.32	0.0580	0.400	345.	211.00	
2 82 11 03 23:10	20.67	4.50	0.004<T	7.69	0.0980	0.362	363.	143.00	
3 82 11 04 02:00	25.20	3.90	0.004<T	8.12	0.1200	0.375	370.	142.00	
4 82 11 04 04:30	25.41	3.09	0.004<T	8.18	0.0650	0.330	272.	177.00	
5 82 11 04 07:00	22.30	2.54	0.004<T	8.25	0.0710	0.352	255.	205.00	
6 82 11 04 08:00	21.70	2.36	0.004<T	8.14	0.0640	0.400	236.	237.00	
7 82 11 04 14:48	20.25	2.34	0.004<T	8.28	0.0630	0.380	262.	212.00	
8 82 11 04 22:16	17.21	4.50	0.006	8.14	0.0670	0.352	323.	213.00	
Minimum :	9.22	2.16	0.004	7.69	0.0580	0.330	236.	142.00	
Maximum :	25.41	4.50	0.006	8.32	0.1200	0.400	370.	237.00	
Mean :	20.24	3.21	0.004	8.14	0.0757	0.368	304.	192.50	

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 19:00	15.34	2.20	0.008	8.11	0.0390	0.425	381.	286.00	
2 82 11 03 23:45	19.53	2.08	0.012	7.83	0.0610	0.297	376.	319.00	
3 82 11 04 01:00	23.35	2.63	0.004<T	7.71	0.0470	0.312	353.	220.00	
4 82 11 04 04:30	27.09	2.05	0.012	8.31	0.0350	0.267	319.	195.00	
5 82 11 04 16:30	34.80	2.17	0.006	8.13	0.0490	0.392	318.	272.00	
6 82 11 05 07:00	37.39	1.90	0.044	8.30	0.0510	0.420	369.	288.00	
7 82 11 05 15:00	30.54	1.63	0.002<T	8.31	0.0580	0.342	389.	212.00	
8 82 11 05 20:45	38.77	1.58	0.002<T	8.42	0.0530	0.255	347.	163.00	
Minimum :	15.34	1.58	0.002	7.71	0.0350	0.255	318.	163.00	
Maximum :	38.77	2.63	0.044	8.42	0.0610	0.425	389.	319.00	
Mean :	28.35	2.03	0.011	8.14	0.0491	0.338	356.	244.37	

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 15:10	2.91	1.50	0.010	8.15	0.0820	0.250	309.	96.60	
2 82 11 03 17:50	2.83	1.67	0.002<T	8.00	0.0750	0.205	337.	67.20	
3 82 11 03 20:00	2.45	1.08	0.004<T	8.22	0.0670	0.180	350.	55.20	
4 82 11 03 22:20	3.39	1.35	0.002<T	8.04	0.0650	0.182	337.	47.80	
5 82 11 03 23:55	4.41	1.64	0.012	8.25	0.0760	0.175	298.	62.80	
6 82 11 04 01:30	5.46	2.25	0.002<T	8.15	0.0830	0.475	237.	261.00	
7 82 11 04 16:00	9.71	2.33	0.002<T	8.09	0.0930	0.432	247.	235.00	
8 82 11 05 02:30	6.09	1.44	0.006	7.98	0.0820	0.237	290.	120.00	
Minimum :	2.45	1.08	0.002	7.98	0.0650	0.175	237.	47.80	
Maximum :	9.71	2.33	0.012	8.25	0.0930	0.475	350.	261.00	
Mean :	4.65	1.65	0.005	8.11	0.0778	0.267	300.	120.70	

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 16:00	1.41	3.17	0.002<T	7.76	0.0610	0.250	265.	93.50	
2 82 11 04 00:10	5.39	2.80	0.002<T	7.73	0.0470	0.183	430.	55.60	
3 82 11 04 00:50	6.17	3.03	0.002<T	8.06	0.0440	0.215	223.	82.30	
4 82 11 04 04:00	6.32	1.71	0.004<T	8.11	0.0380	0.135	232.	57.90	
5 82 11 04 08:00	6.97	1.50	0.002<T	8.05	0.0500	0.180	216.	84.00	
6 82 11 04 15:00	5.75	2.05	0.002<T	8.33	0.0600	0.212	260.	96.90	
7 82 11 04 16:30	6.46	2.20	0.010	8.12	0.0520	0.175	290.	77.90	
8 82 11 04 18:00	4.74	1.97	0.006	8.10	0.0550	0.160	319.	67.50	
Minimum :	1.41	1.50	0.002	7.73	0.0380	0.135	216.	55.60	
Maximum :	6.97	3.17	0.010	8.33	0.0610	0.250	430.	96.90	
Mean :	5.48	2.30	0.003	8.03	0.0509	0.189	279.	76.77	

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 19:15	19.44	1.76	0.002<T	8.35	0.0790	0.372	352.	227.00	
2 82 11 03 23:00	21.14	1.63	0.002<T	8.41	0.0680	0.400	354.	208.00	
3 82 11 03 23:30	21.72	2.04	0.002<T	8.29	0.0380	0.295	323.	230.00	
4 82 11 04 01:30	24.32	1.81	0.002<T	8.40	0.0290	0.257	308.	165.00	
5 82 11 04 03:00	24.53	1.73	0.002<T	8.41	0.0320	0.262	308.	215.00	
6 82 11 04 04:30	25.25	1.75	0.002<T	8.11	0.0430	0.360	301.	274.00	
7 82 11 05 01:15	43.75	2.22	0.002<T	8.18	0.0460	0.423	340.	357.00	
8 82 11 05 20:30	28.02	2.52	0.002<T	8.21	0.0480	0.232	354.	166.00	
Minimum :	19.44	1.63	0.002	8.11	0.0290	0.232	301.	165.00	
Maximum :	43.75	2.52	0.002	8.41	0.0790	0.423	354.	357.00	
Mean :	26.02	1.93	0.002	8.29	0.0478	0.323	330.	230.25	

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 22:30	22.58	1.95	0.002<T	8.24	0.0310	0.252	367.	203.00	
2 82 11 04 02:00	23.41	2.11	0.002<T	7.90	0.0260	0.262	331.	190.00	
3 82 11 04 07:50	32.40	2.19	0.002<T	8.08	0.0290	0.260	306.	190.00	
4 82 11 04 13:45	35.82	2.58	0.002<T	8.27	0.0410	0.390	294.	297.00	
5 82 11 04 20:00	45.31	2.21	0.002<T	8.26	0.0530	0.525	332.	399.00	
6 82 11 04 22:00	45.81	1.87	0.006	8.30	0.0640	0.425	311.	421.00	
7 82 11 05 06:45	42.01	1.74	0.016	8.16	0.0590	0.375	331.	258.00	
8 82 11 05 20:00	30.04	1.51	0.006	8.46	0.0550	0.315	0.!LA	0.00!LA	
Minimum :	22.58	1.51	0.002	7.90	0.0260	0.252	294.	190.00	
Maximum :	45.81	2.58	0.016	8.46	0.0640	0.525	367.	421.00	
Mean :	34.73	2.02	0.004	8.20	0.0446	0.350	324.	279.71	

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 17:15	1.91	1.93	0.008	8.29	0.0260	0.172	410.	108.00	
2 82 11 03 19:15	2.36	1.74	0.006	8.35	0.0250	0.167	418.	100.00	
3 82 11 04 01:45	3.99	1.86	0.004<T	8.41	0.0300	0.215	351.	118.00	
4 82 11 04 04:45	4.39	1.85	0.006	8.22	0.0360	0.183	341.	110.00	
5 82 11 04 06:45	5.13	1.84	0.008	8.10	0.0480	0.225	307.	127.00	
6 82 11 04 15:00	5.70	2.17	0.004<T	8.17	0.0620	0.240	323.	110.00	
7 82 11 05 10:30	11.43	1.92	0.006	8.25	0.0730	0.270	367.	125.00	
8 82 11 05 19:00	7.95	1.91	0.006	7.93	0.0850	0.272	353.	109.00	
Minimum :	1.91	1.74	0.004	7.93	0.0250	0.167	307.	100.00	
Maximum :	11.43	2.17	0.008	8.41	0.0850	0.272	418.	127.00	
Mean :	5.35	1.90	0.006	8.22	0.0481	0.218	358.	113.25	

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 17:00	12.19	1.68	0.008	8.31	0.0400	0.310	352.	118.00	
2 82 11 03 23:30	13.20	2.18	0.016	8.22	0.0320	0.365	357.	153.00	
3 82 11 04 02:00	13.77	1.25	0.006	8.35	0.0890	0.397	320.	216.00	
4 82 11 04 05:00	15.93	1.56	0.006	8.32	0.0390	0.290	311.	180.00	
5 82 11 04 08:00	18.47	1.18	0.006	8.55	0.0960	0.310	308.	279.00	
6 82 11 04 18:00	26.93	1.74	0.006	8.34	0.0630	0.395	332.	394.00	
7 82 11 05 02:00	29.47	1.71	0.004<T	8.29	0.0500	0.385	333.	297.00	
8 82 11 05 18:45	17.54	1.22	0.004	8.41	0.0380	0.217	364.	173.00	
Minimum :	12.19	1.18	0.004	8.22	0.0320	0.217	308.	158.00	
Maximum :	29.47	2.18	0.016	8.55	0.0960	0.397	364.	394.00	
Mean :	18.43	1.56	0.007	8.34	0.0558	0.333	334.	231.75	

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 16:00	12.94	1.58	0.004<T	8.32	0.0360	0.290	339.	243.00	
2 82 11 04 01:00	11.60	1.45	0.004<T	8.39	0.0320	0.222	332.	227.00	
3 82 11 04 04:10	12.11	1.27	0.004<T	8.27	0.0340	0.227	336.	186.00	
4 82 11 04 06:20	13.58	1.34	0.004<T	8.23	0.0380	0.257	338.	189.00	
5 82 11 04 13:30	19.04	1.52	0.008	8.16	0.0520	0.367	336.	226.00	
6 82 11 04 17:50	21.25	1.68	0.006	8.28	0.0560	0.415	330.	285.00	
7 82 11 04 22:10	21.38	1.53	0.004<T	8.31	0.0580	0.345	350.	272.00	
8 82 11 05 18:00	14.12	1.28	0.006	8.29	0.0340	0.215	351.	160.00	
Minimum :	11.60	1.27	0.004	8.16	0.0320	0.215	330.	160.00	
Maximum :	21.38	1.68	0.008	8.39	0.0580	0.415	351.	285.00	
Mean :	15.75	1.45	0.005	8.28	0.0425	0.292	339.	223.50	

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 03 15:30	0.96	1.66	0.010	8.19	0.0530	0.167	207.	55.60	
2 82 11 03 22:00	1.20	3.01	0.016	8.17	0.0390	0.295	359.	56.10	
3 82 11 03 23:33	2.44	6.60	0.012	7.75	0.0360	0.217	265.	97.10	
4 82 11 04 00:30		1.09	0.010	7.91	0.0430	0.202	255.	83.30	
6 82 11 04 04:25	2.93	1.42	0.008	8.22	0.0410	0.150	226.	90.10	
7 82 11 04 11:15	4.44	1.80	0.004<T	8.28	0.0590	0.247	236.	116.00	
8 82 11 04 14:30	3.59	2.15	0.010	8.12	0.0590	0.227	312.	99.70	
9 82 11 04 17:45	3.14	1.76	0.008	8.18	0.0630	0.215	309.	75.30	
Minimum :	0.96	1.09	0.004	7.75	0.0360	0.150	207.	55.60	
Maximum :	4.44	6.60	0.016	8.29	0.0630	0.295	359.	116.00	
Mean :	2.66	2.43	0.009	8.10	0.0498	0.215	271.	82.91	

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 2 - NOVEMBER 3 TO NOVEMBER 5, 1982

Bacteria

STATION #1 Taylor Creek @ Don R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 11 03 16:00	0.32	400U72	100<		
2	82 11 03 17:00	0.33	600U72	500U72		
3	82 11 03 18:00	0.40	900U72	800U72		
4	82 11 03 19:00	0.52	1500U72	600U72		
5	82 11 03 21:00	0.74	1000<	3000U72		
6	82 11 03 23:00	1.43	2000U72	2000U72		
7	82 11 04 01:00	2.04	1000<	4000U72		
8	82 11 04 03:20	2.04	1000U72	3000U72		
9	82 11 04 14:05	1.27	4100U72	3000U72		
	Minimum :	0.32	400	100		
	Maximum :	2.04	4100	4000		
	Mean :	1.01	1115	1201		

STATION #2 Don River @ mouth

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 11 03 19:30	9.22	2900U72	3900U72		
2	82 11 03 23:10	20.67	4000U72	5100U72		
3	82 11 04 02:00	25.20	11300U72	9100U72		
4	82 11 04 04:30	25.41	6200U72	4100U72		
5	82 11 04 07:00	22.30	2400U72	3600U72		
6	82 11 04 08:00	21.70	1800U72	1500U72		
7	82 11 04 14:48	20.25	3700U72	2900U72		
8	82 11 04 22:16	17.21	2700U72	2400U72		
	Minimum :	9.22	1800	1500		
	Maximum :	25.41	11300	9100		
	Mean :	20.24	3683	3527		

STATION #3 Humber River @ Bloor St

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerus #/100mL	P aerus Bckgrnd #/100mL
1	82 11 03 19:00	15.34	500U72	3100U72		
2	82 11 03 23:45	19.53	1000U72	3000U72		
3	82 11 04 01:00	23.35	18000U72	53000U72		
4	82 11 04 04:30	27.09	900U72	2300U72		
5	82 11 04 16:30	34.80	1000<	2000U72		
6	82 11 05 07:00	37.39	1000<	1000<		
7	82 11 05 15:00	30.54	2000<=>	1000<		
8	82 11 05 20:45	38.77	500<=>	3500		
	Minimum :	15.34	500	1000		
	Maximum :	38.77	18000	53000		
	Mean :	28.35	1299	3072		

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerus #/100mL	P aerus Bckgrnd #/100mL
1	82 11 03 15:10	2.91	300U72	1100U72		
2	82 11 03 17:50	2.93	400U72	1500U72		
3	82 11 03 20:00	2.45	100<	400U72		
4	82 11 03 22:20	3.39	100U72	1900U72		
5	82 11 03 23:55	4.41	500U72	900U72		
6	82 11 04 01:30	5.46	1000U72	2300U72		
7	82 11 04 16:00	9.71	1200U72	1900U72		
8	82 11 05 02:30	6.09	700<=>	1000		
	Minimum :	2.45	100	400		
	Maximum :	9.71	1200	2300		
	Mean :	4.65	417	1221		

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerus #/100mL	P aerus Bckgrnd #/100mL
1	82 11 03 16:00	1.41	1800U72	4100U72		
2	82 11 04 00:10	5.89	1000<	7000U72		
3	82 11 04 00:50	6.17	1000U72	1000<		
4	82 11 04 04:00	6.32	1000U72	2000U72		
5	82 11 04 08:00	6.97	2200U72	1800U72		
6	82 11 04 15:00	5.75	2000U72	3000U72		
7	82 11 04 16:30	6.46	1000<	1000U72		
8	82 11 04 18:00	4.74	2100U72	3100U72		
	Minimum :	1.41	1000	1000		
	Maximum :	6.97	2200	7000		
	Mean :	5.48	1421	2360		

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 11 03 19:15	19.44	700U72	1200U72		
2	82 11 03 23:00	21.14	700U72	1200U72		
3	82 11 03 23:30	21.72	400U72	2000U72		
4	82 11 04 01:30	24.32	100U72	2500U72		
5	82 11 04 03:00	24.53	600U72	2200U72		
6	82 11 04 04:30	25.25	200U72	2200U72		
7	82 11 05 01:15	43.75	200<=>	2200		
8	82 11 05 20:30	28.02	1400	2300		
	Minimum :	19.44	100	1200		
	Maximum :	43.75	1400	2500		
	Mean :	26.02	400	1909		

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 11 03 22:30	22.58	200U72	1900U72		
2	82 11 04 02:00	23.41	700U72	2200U72		
3	82 11 04 07:50	32.40	600U72	1900U72		
4	82 11 04 13:45	35.82	400U72	1300U72		
5	82 11 04 20:00	45.31	700U72	2100U72		
6	82 11 04 22:00	45.81	400U72	1700U72		
7	82 11 05 06:45	42.01	200<=>	1400		
8	82 11 05 20:00	30.04	1000	3200		
	Minimum :	22.58	200	1400		
	Maximum :	45.81	1000	3200		
	Mean :	34.73	456	1959		

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 11 03 17:15	1.91	200U72	600U72		
2	82 11 03 19:15	2.36	200U72	100U72		
3	82 11 04 01:45	3.99	200U72	600U72		
4	82 11 04 04:45	4.39	200U72	400U72		
5	82 11 04 06:45	5.13	400U72	100<		
6	82 11 04 15:00	5.70	500U72	200U72		
7	82 11 05 10:30	11.43	800<=>	1000		
8	82 11 05 19:00	7.95	500<=>	1900		
	Minimum :	1.91	200	100		
	Maximum :	11.43	800	1900		
	Mean :	5.33	326	388		

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 11 03 17:00	12.19	100U72	700U72		
2	82 11 03 23:30	13.20	200U72	1400U72		
3	82 11 04 02:00	13.77	600U72	2000U72		
4	82 11 04 05:00	15.93	100U72	600U72		
5	82 11 04 08:00	18.47	400U72	900U72		
6	82 11 04 18:00	26.93	300U72	900U72		
7	82 11 05 02:00	29.47	300<=>	800<=>		
8	82 11 05 18:45	17.54	100<	2400		
	Minimum :	12.19	100	600		
	Maximum :	29.47	600	2400		
	Mean :	18.43	214	1078		

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 11 03 16:00	12.94	600U72	600U72		
2	82 11 04 01:00	11.60	100U72	300U72		
3	82 11 04 04:10	12.11	100U72	900U72		
4	82 11 04 06:20	13.59	500U72	1100U72		
5	82 11 04 13:30	19.04	200U72	900U72		
6	82 11 04 17:50	21.25	300U72	300U72		
7	82 11 04 22:10	21.38	400U72	300U72		
9	82 11 05 18:00	14.12	500<=>	1400		
	Minimum :	11.60	100	300		
	Maximum :	21.38	600	1400		
	Mean :	15.75	278	725		

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 11 03 15:30	0.96	500U72	1000U72		
2	82 11 03 22:00	1.20	100U72	2000U72		
3	82 11 03 23:33	2.44	1000U72	3800U72		
4	82 11 04 00:30		700U72	2400U72		
6	82 11 04 04:25	2.93	400U72	500U72		
7	82 11 04 11:15	4.44	500U72	900U72		
8	82 11 04 14:30	3.59	700U72	1100U72		
9	82 11 04 17:45	3.14	400U72	1200U72		
	Minimum :	0.96	100	500		
	Maximum :	4.44	1000	3800		
	Mean :	2.66	459	1347		

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 2 - NOVEMBER 3 TO NOVEMBER 5, 1982

Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 03 16:00	0.32	0.0002	0.006	0.019	0.040<	0.010	0.023	0.040
3	82 11 03 18:00	0.40	0.0004	0.004	0.018	0.040<	0.004	0.037	0.048
5	82 11 03 21:00	0.74	0.0004	0.006	0.023	0.040<	0.005	0.076	0.068
7	82 11 04 01:00	2.04	0.0007	0.011	0.037	0.040	0.008	0.087	0.120
	Minimum :	0.32	0.0002	0.004	0.018	0.040	0.004	0.023	0.040
	Maximum :	2.04	0.0007	0.011	0.037	0.040	0.010	0.087	0.120
	Mean :	1.01	0.0004	0.006	0.024	0.040	0.006	0.055	0.069

STATION #2 Don River @ mouth

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 03 19:30	9.22	0.0006	0.010	0.018	0.040	0.008	0.031	0.065
3	82 11 04 02:00	25.20	0.0007	0.010	0.023	0.050	0.008	0.031	0.085
6	82 11 04 08:00	21.70	0.0006	0.008	0.024	0.040	0.007	0.058	0.077
	Minimum :	9.22	0.0006	0.008	0.018	0.040	0.007	0.031	0.065
	Maximum :	25.41	0.0007	0.010	0.024	0.050	0.008	0.058	0.085
	Mean :	20.24	0.0006	0.009	0.021	0.043	0.007	0.040	0.075

STATION #3 Humber River @ Bloor St

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 03 19:00	15.34	0.0005	0.011	0.017	0.040<	0.008	0.023	0.048
3	82 11 04 01:00	23.35	0.0005	0.010	0.022	0.040<	0.007	0.033	0.054
6	82 11 05 07:00	37.39	0.0005	0.010	0.016	0.040<	0.008	0.020	0.042
9	82 11 05 20:45	38.77	0.0004	0.008	0.130	0.040<	0.006	0.013	0.027
	Minimum :	15.34	0.0004	0.008	0.016	0.040	0.006	0.013	0.027
	Maximum :	38.77	0.0005	0.011	0.130	0.040	0.008	0.033	0.054
	Mean :	28.35	0.0004	0.009	0.046	0.040	0.007	0.022	0.042

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 03 15:10	2.91	0.0005	0.022	0.017	0.040<	0.006	0.019	0.055
4	82 11 03 22:20	3.39	0.0004	0.017	0.017	0.040<	0.003	0.028	0.060
6	82 11 04 01:30	5.46	0.0010MAIN	0.033AIN	0.037AIN	0.040	0.016AIN	0.062AIN	0.130AIN
8	82 11 05 02:30	6.09	0.0005	0.014	0.015	0.040<	0.006	0.024	0.058
	Minimum :	2.45	0.0004	0.014	0.015	0.040	0.003	0.019	0.055
	Maximum :	9.71	0.0010	0.033	0.037	0.040	0.016	0.062	0.130
	Mean :	4.65	0.0006	0.021	0.021	0.040	0.007	0.033	0.075

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
3	82 11 04 00:50	6.17	0.0006	0.011	0.021	0.040	0.008	0.075	0.082
5	82 11 04 08:00	6.97	0.0004	0.009	0.013	0.050	0.006	0.033	0.050
8	82 11 04 18:00	4.94	0.0006	0.010	0.016	0.040	0.006	0.046	0.058
	Minimum :	1.41	0.0004	0.009	0.013	0.040	0.006	0.033	0.050
	Maximum :	6.97	0.0006	0.011	0.021	0.050	0.008	0.075	0.082
	Mean :	5.48	0.0005	0.010	0.016	0.043	0.006	0.051	0.063

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 03 19:15	19.44	0.0003	0.008	0.013	0.040<	0.006	0.013	0.034
3	82 11 03 23:30	21.72	0.0004	0.009	0.014	0.040<	0.006	0.021	0.032
5	82 11 04 03:00	24.53	0.0004	0.012	0.014	0.040<	0.007	0.020	0.048
8	82 11 05 20:30	28.02	0.0002	0.006	0.013	0.040<	0.005	0.008	0.024
	Minimum :	19.44	0.0002	0.006	0.013	0.040	0.005	0.008	0.024
	Maximum :	43.75	0.0004	0.012	0.014	0.040	0.007	0.021	0.048
	Mean :	26.02	0.0003	0.008	0.013	0.040	0.006	0.015	0.036

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
3	82 11 04 07:50	32.40	0.0002<	0.010	0.019	0.040<	0.010	0.014	0.070
5	82 11 04 20:00	45.81	0.0006AIN	0.016AIN	0.022AIN	0.040<	0.010AIN	0.019AIN	0.051AIN
7	82 11 05 06:45	42.01	0.0004	0.010	0.018	0.040<	0.008	0.014	0.035
9	82 11 05 20:00	30.04	0.0003	0.006	0.011	0.040<	0.005	0.008	0.030
	Minimum :	22.58	0.0002	0.006	0.011	0.040	0.005	0.008	0.030
	Maximum :	45.81	0.0006	0.016	0.022	0.040	0.010	0.019	0.070
	Mean :	34.73	0.0003	0.010	0.017	0.040	0.008	0.013	0.047

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 03 17:15	1.91	0.0002	0.006	0.012	0.040<	0.004	0.013	0.020
4	82 11 04 04:45	4.39	0.0003	0.008	0.013	0.040<	0.006	0.019	0.035
7	82 11 05 10:30	11.43	0.0003	0.007	0.014	0.040<	0.006	0.007	0.037
9	82 11 05 19:00	7.95	0.0002	0.006	0.016	0.040<	0.005	0.010	0.026
	Minimum :	1.91	0.0002	0.006	0.012	0.040	0.004	0.007	0.020
	Maximum :	11.43	0.0003	0.008	0.016	0.040	0.006	0.019	0.037
	Mean :	5.35	0.0002	0.006	0.013	0.040	0.005	0.012	0.029

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 03 17:00	12.19	0.0003	0.010	0.014	0.040<	0.006	0.010	0.035
4	82 11 04 05:00	15.93	0.0002	0.012	0.014	0.040<	0.006	0.012	0.029
7	82 11 05 02:00	29.47	0.0003	0.008	0.014	0.040<	0.006	0.010	0.034
9	82 11 05 18:45	17.54	0.0002	0.005	0.012	0.030<	0.004	0.005	0.016
	Minimum :	12.19	0.0002	0.005	0.012	0.030	0.004	0.005	0.016
	Maximum :	29.47	0.0003	0.012	0.014	0.040	0.006	0.012	0.035
	Mean :	18.43	0.0002	0.008	0.013	0.037	0.005	0.009	0.032

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 03 16:00	12.94	0.0002	0.012	0.013	0.030<	0.005	0.007	0.030
3	82 11 04 04:10	12.11	0.0002<	0.005	0.012	0.030<	0.004	0.017	0.031
6	82 11 04 17:50	21.25	0.0004	0.010	0.018	0.030<	0.009	0.012	0.032
8	82 11 05 18:00	14.12	0.0002	0.006	0.013	0.030<	0.004	0.008	0.015
	Minimum :	11.60	0.0002	0.005	0.012	0.030	0.004	0.007	0.015
	Maximum :	21.38	0.0004	0.012	0.018	0.030	0.009	0.017	0.032
	Mean :	15.75	0.0002	0.008	0.014	0.030	0.005	0.011	0.027

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 03 15:30	0.96	0.0002	0.007	0.017	0.030	0.004	0.015	0.044
5	82 11 04 03:00	2.63	0.0004	0.008	0.016	0.060	0.007	0.052	0.073
7	82 11 04 11:15	4.44	0.0004	0.011	0.017	0.070	0.006	0.049	0.075
9	82 11 04 17:45	3.14	0.0003	0.008	0.016	0.040	0.005	0.035	0.050
	Minimum :	0.96	0.0002	0.007	0.016	0.030	0.004	0.015	0.044
	Maximum :	4.44	0.0004	0.011	0.017	0.070	0.007	0.052	0.075
	Mean :	2.66	0.0003	0.008	0.016	0.050	0.005	0.037	0.060

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 2 - NOVEMBER 3 TO NOVEMBER 5, 1982

Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3 82 11 03 18:00	0.40	1<W	7	1<W	5	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
7 82 11 04 01:00	2.04	1<W	16	1<W	14	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			7		5								
Max. detected :			16		14								
No. detected :		0	2	0	2	0	0	0	0	0	0	0	0

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3 82 11 04 02:00	25.20	1<W	9	4	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 82 11 04 08:00	21.70	1<W	13	10	7	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			9	4	7								
Max. detected :			13	10	7								
No. detected :		0	2	2	1	0	0	0	0	0	0	0	0

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3 82 11 04 01:00	23.35	1<W	6	5	5	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 82 11 05 07:00	37.39	1<W	6	1<W	2	2<W	2	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			6	5	2		2						
Max. detected :			6	5	5		2						
No. detected :		0	2	1	2	0	1	0	0	0	0	0	0

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
4 82 11 03 22:20	3.39	1<W	9	4	5	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 82 11 04 01:30	5.46	1<W	12	4	5	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			9	4	5								
Max. detected :			12	4	5								
No. detected :		0	2	2	2	0	0	0	0	0	0	0	0

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3 82 11 04 00:50	6.17	1<W	12	5	5	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
5 82 11 04 08:00	6.97	1<W	13	4	5	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			12	4	5								
Max. detected :			13	5	5								
No. detected :		0	2	2	2	0	0	0	0	0	0	0	0

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3 82 11 03 23:30	21.72	1<W	7	5	2	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
5 82 11 04 03:00	24.53	1<W	9	3	4	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			7	3	2								
Max. detected :			9	5	4								
No. detected :		0	2	2	2	0	0	0	0	0	0	0	0

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3 82 11 04 07:50	32.40	1<W	8	6	2	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
5 82 11 04 20:00	45.81	1<W	8	1<W	9	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			8	6	2								
Max. detected :			8	6	9								
No. detected :		0	2	1	2	0	0	0	0	0	0	0	0

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
4 82 11 04 04:45	4.39	1<W	8	1<W	2	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
7 82 11 05 10:30	11.43	1<W	5	1<W	4	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			5		2								
Max. detected :			8		4								
No. detected :		0	2	0	2	0	0	0	0	0	0	0	0

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
4 82 11 04 05:00	15.93	1<W	9	4	10	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
7 82 11 05 02:00	29.47	1<W	6	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			6	4	10								
Max. detected :			9	4	10								
No. detected :		0	2	1	1	0	0	0	0	0	0	0	0

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3 82 11 04 04:10	12.11	1<W	5	1<W	8	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 82 11 04 17:50	21.25	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			5		8								
Max. detected :			5		8								
No. detected :		0	1	0	1	0	0	0	0	0	0	0	0

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
4 82 11 04 00:30		1<W	6	1<W	8	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
7 82 11 04 11:15	4.44	1<W	12	1<W	15	2	4	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			6		8	2	4						
Max. detected :			12		15	2	4						
No. detected :		0	2	0	2	1	1	0	0	0	0	0	0

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 2 - NOVEMBER 3 TO NOVEMBER 5, 1982

Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
3 82 11 03 18:00	0.40	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	270	200<W
7 82 11 04 01:00	2.04	1<W	1<W	5<W	2<W	5<W	390P54	5<W	1<W	5<W	50<W	200	200<W
Min. detected :							390					200	
Max. detected :							390					270	
No. detected :		0	0	0	0	0	1	0	0	0	0	2	0

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
3 82 11 04 02:00	25.20	1<W	1<W	5<W	2<W	5<W	90P54	5<W	1<W	5<W	50<W	380	200<W
6 82 11 04 08:00	21.70	1<W	1<W	5<W	2<W	5<W	110P54	5<W	1<W	5<W	50<W	0!RP	200<W
Min. detected :							90					380	
Max. detected :							110					380	
No. detected :		0	0	0	0	0	2	0	0	0	0	1	0

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
3 82 11 04 01:00	23.35	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	350	200<W
6 82 11 05 07:00	37.39	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :												350	
Max. detected :												350	
No. detected :		0	0	0	0	0	0	0	0	0	0	1	0

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
4 82 11 03 22:20	3.39	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
6 82 11 04 01:30	5.46	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	2	5<W	50<W	190	200<W
Min. detected :									2			190	
Max. detected :									2			190	
No. detected :		0	0	0	0	0	0	0	1	0	0	1	0

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
3 82 11 04 00:50	6.17	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
5 82 11 04 08:00	6.97	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :													
Max. detected :													
No. detected :		0	0	0	0	0	0	0	0	0	0	0	0

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
3 82 11 03 23:30	21.72	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
5 82 11 04 03:00	24.53	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	320	200<W
Min. detected :												320	
Max. detected :												320	
No. detected :		0	0	0	0	0	0	0	0	0	0	1	0

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
3 82 11 04 07:50	32.40	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	340	200<W
5 82 11 04 20:00	45.81	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	250	200<W
Min. detected :												250	
Max. detected :												340	
No. detected :		0	0	0	0	0	0	0	0	0	0	2	0

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
4 82 11 04 04:45	4.39	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	580	200<W
7 82 11 05 10:30	11.43	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	220	200<W
Min. detected :												220	
Max. detected :												580	
No. detected :		0	0	0	0	0	0	0	0	0	0	2	0

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
4 82 11 04 05:00	15.93	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	220	200<W
7 82 11 05 02:00	29.47	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :												220	
Max. detected :												220	
No. detected :		0	0	0	0	0	0	0	0	0	0	1	0

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
3 82 11 04 04:10	12.11	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
6 82 11 04 17:50	21.25	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :													
Max. detected :													
No. detected :		0	0	0	0	0	0	0	0	0	0	0	0

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
4 82 11 04 00:30		1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	440	200<W
7 82 11 04 11:15	4.44	1<W	1	5<W	2<W	5<W	[illegible]	5<W	1<W	5<W	50<W	220	200<W
Min. detected :			1									220	
Max. detected :			1									440	
No. detected :		0	1	0	0	0	0	0	0	0	0	2	0

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 2 - NOVEMBER 3 TO NOVEMBER 5, 1982

Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 11 03 18:00	0.40	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	70
7 82 11 04 01:00	2.04	100<W	100<W	100<W	80	3	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :					80	2						70
Max. detected :					80	3						70
No. detected :		0	0	0	1	2	0	0	0	0	0	1

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 11 04 02:00	25.20	100<W	100<W	100<W	170	2	100<W	50<W	50<W	50<W	50<W	50<W
6 82 11 04 08:00	21.70	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :					170	2						
Max. detected :					170	2						
No. detected :		0	0	0	1	2	0	0	0	0	0	0

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 11 04 01:00	23.35	100<W	100<W	100<W	50<W	0<W	100<W	50<W	50<W	50<W	50<W	50<W
6 82 11 05 07:00	37.39	100<W	100<W	100<W	70	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :					70							
Max. detected :					70							
No. detected :		0	0	0	1	0	0	0	0	0	0	0

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
4	82 11 03 22:20	3.39	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
6	82 11 04 01:30	5.46	100<W	100<W	100<W	50<W	0<W	100<W	50<W	50<W	50<W	50<W	340
Min. detected :													340
Max. detected :													340
No. detected :			0	0	0	0	0	0	0	0	0	0	1

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3	82 11 04 00:50	6.17	100<W	100<W	100<W	50<W	0<W	100<W	50<W	50<W	50<W	50<W	530
5	82 11 04 08:00	6.97	100<W	100<W	100<W	70	0<W	100<W	50<W	50<W	50<W	50<W	210
Min. detected :						70							210
Max. detected :						70							530
No. detected :			0	0	0	1	0	0	0	0	0	0	2

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3	82 11 03 23:30	21.72	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
5	82 11 04 03:00	24.53	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	100
Min. detected :													100
Max. detected :													100
No. detected :			0	0	0	0	0	0	0	0	0	0	1

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3	82 11 04 07:50	32.40	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	80
5	82 11 04 20:00	45.81	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50
Min. detected :													50
Max. detected :													80
No. detected :			0	0	0	0	0	0	0	0	0	0	2

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPM ng/L
4 82 11 04 04:45	4.39	100<W	120	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
7 82 11 05 10:30	11.43	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :			120									
Max. detected :			120									
No. detected :		0	1	0	0	0	0	0	0	0	0	0

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPM ng/L
4 82 11 04 05:00	15.93	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	90
7 82 11 05 02:00	29.47	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												90
Max. detected :												90
No. detected :		0	0	0	0	0	0	0	0	0	0	1

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPM ng/L
3 82 11 04 04:10	12.11	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
6 82 11 04 17:50	21.25	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												
Max. detected :												
No. detected :		0	0	0	0	0	0	0	0	0	0	0

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPM ng/L
4 82 11 04 00:30		310	120	100<W	50	1<W	100<W	50<W	50<W	50<W	50<W	50<W
7 82 11 04 11:15	4.44	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :		310	120		50	2						
Max. detected :		310	120		50	2						
No. detected :		1	1	0	1	1	0	0	0	0	0	0

WET EVENT 3 DATA

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 3 - NOVEMBER 21 TO NOVEMBER 22, 1982

Conventional Water Quality Parameters

STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 21 13:05	1.35	3.34	0.004<T	7.45	0.1250	0.425	246.	108.00	
2 82 11 21 13:55	1.50	2.86	0.010	7.87	0.0570	0.257	230.	59.80	
3 82 11 21 16:30	0.97	2.52	0.006	7.80	0.0540	0.177	248.	57.90	
4 82 11 21 18:40	0.60	2.26	0.004<T	7.96	0.0415	0.117	250.	26.60	
5 82 11 21 20:28	0.53	1.53	0.006	7.84	0.0425	0.100	277.	18.20	
6 82 11 21 22:33	0.46	1.60	0.002<T	7.11	0.0440	0.087	374.	10.60	
Minimum :	0.46	1.53	0.002	7.11	0.0415	0.087	230.	10.60	
Maximum :	1.50	3.34	0.010	7.96	0.1250	0.425	374.	108.00	
Mean :	0.90	2.35	0.005	7.67	0.0606	0.193	270.	46.85	

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 21 12:04	13.41	5.88	0.004<T	7.94	0.0785	0.655	284.	302.00	
2 82 11 21 14:11	10.81	8.20	0.004<T	7.65	0.1250	0.555	231.	217.00	
3 82 11 21 16:50	9.50	5.54	0.010	7.98	0.0715	0.405	257.	209.00	
4 82 11 21 19:10	8.35	5.72	0.006	8.03	0.0680	0.335	243.	149.00	
5 82 11 21 23:43	5.95	3.04	0.004<T	8.12	0.0690	0.300	345.	141.00	
Minimum :	5.95	3.04	0.004	7.65	0.0680	0.300	243.	141.00	
Maximum :	13.41	8.20	0.010	8.12	0.1250	0.655	345.	302.00	
Mean :	9.60	5.67	0.005	7.95	0.0824	0.450	292.	203.60	

STATION #3 Humber River @ Bloor St.

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 21 19:45	9.11	1.94	0.002<T	8.33	0.0250	0.132	305.	60.30	
2 82 11 22 02:30	11.10	1.56	0.006	8.40	0.0010<W	0.149	402.	51.60	
3 82 11 22 04:15	13.16	1.74	0.004<T	8.50	0.0025<T	0.165	447.	28.90	
4 82 11 22 06:00	13.83	2.61	0.006	8.39	0.0020<T	0.207	462.	56.90	
5 82 11 22 11:30	13.96	2.25	0.006	8.30	0.0050	0.217	469.	127.00	
6 82 11 22 14:00	13.43	1.63	0.006	8.48	0.0030	0.160	486.	15.40	
7 82 11 22 16:00	12.52	1.59	0.004<T	8.39	0.0035	0.172	272.	65.30	
8 82 11 22 19:30	11.70	1.59	0.016	8.45	0.0160	0.107	491.	59.90	
Minimum :	9.11	1.56	0.002	8.30	0.0010	0.107	272.	15.40	
Maximum :	13.96	2.61	0.016	8.50	0.0250	0.217	491.	127.00	
Mean :	12.35	1.86	0.006	8.40	0.0072	0.163	416.	58.16	

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 21 11:30	3.86	4.10	0.006	8.01	0.0665	0.320	327.	165.00	
2 82 11 21 13:05	5.15	5.28	0.006	8.03	0.0545	0.385	336.	131.00	
3 82 11 21 14:00	5.77	2.54	0.016	7.66	0.0465	0.240	374.	95.50	
4 82 11 21 15:00	4.19	2.34	0.006	7.93	0.0460	0.265	274.	86.70	
5 82 11 21 18:15	3.39	3.02	0.008	7.92	0.0505	0.227	249.	90.10	
Minimum :	3.39	2.34	0.006	7.66	0.0460	0.227	249.	86.70	
Maximum :	5.77	5.28	0.016	8.03	0.0665	0.385	374.	165.00	
Mean :	4.47	3.45	0.008	7.91	0.0528	0.287	312.	113.66	

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1 82 11 21 11:45	2.51	3.62	0.004<T	8.02	0.0390	0.200	291.	76.80	
2 82 11 21 12:45	3.14	6.04	0.008	7.80	0.1550	0.417	303.	96.40	
3 82 11 21 13:45	3.76	4.32	0.006	7.82	0.1050	0.357	271.	70.30	
4 82 11 21 14:45	3.46	3.64	0.006	8.00	0.0365	0.187	223.	75.40	
5 82 11 21 15:45	2.42	3.20	0.014	8.00	0.0350	0.162	243.	47.90	
6 82 11 21 17:45	2.36	3.08	0.004<T	7.90	0.0500	0.127	282.	36.90	
Minimum :	2.36	3.08	0.004	7.80	0.0350	0.127	223.	36.90	
Maximum :	3.76	6.04	0.014	8.02	0.1550	0.417	303.	96.40	
Mean :	2.94	3.98	0.007	7.92	0.0700	0.241	269.	67.28	

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 11 21 16:15	9.27	2.06	0.006	8.10	0.0200	0.112	309.	56.00	
2	82 11 22 02:20	16.23	1.75	0.010	8.37	0.0065	0.172	457.	144.00	
3	82 11 22 03:45	15.89	1.81	0.008	8.40	0.0110	0.172	440.	133.00	
4	82 11 22 05:30	16.31	1.48	0.004<T	8.49	0.0060	0.225	491.	141.00	
5	82 11 22 07:30	16.31	1.68	0.006	8.43	0.0090	0.180	427.	140.00	
6	82 11 22 11:00	16.31	1.74	0.006	8.48	0.0030	0.137	425.	116.00	
7	82 11 22 13:30	16.31	1.21	0.004<T	8.49	0.0150	0.143	423.	125.00	
8	82 11 22 20:15	13.83	1.16	0.006	8.45	0.0110	0.145	403.	134.00	
	Minimum :	9.27	1.16	0.004	8.10	0.0030	0.112	309.	56.00	
	Maximum :	16.31	2.06	0.010	8.49	0.0200	0.225	491.	144.00	
	Mean :	15.05	1.61	0.006	8.40	0.0101	0.160	421.	123.62	

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 11 21 15:30	8.41	1.26	0.004<T	8.34	0.0205	0.112	326.	36.70	
2	82 11 22 01:30	13.66	2.12	0.008	8.39	0.0110	0.163	404.	92.20	
3	82 11 22 05:15	17.26	1.66	0.008	8.27	0.0150	0.187	424.	149.00	
4	82 11 22 07:00	17.71	1.46	0.006	8.36	0.0010<T	0.187	447.	106.00	
5	82 11 22 09:00	17.71	1.41	0.006	8.30	0.0120	0.145	425.	120.00	
6	82 11 22 10:30	16.89	1.68	0.006	8.28	0.0120	0.150	443.	124.00	
7	82 11 22 15:15	15.45	1.19	0.006	8.40	0.0070	0.127	431.	109.00	
8	82 11 22 20:15	14.14	1.11	0.010	8.36	0.0270	0.127	440.	63.[illegible]	
	Minimum :	8.41	1.11	0.004	8.27	0.0010	0.112	326.	36.70	
	Maximum :	17.71	2.12	0.010	8.40	0.0270	0.187	447.	149.00	
	Mean :	15.15	1.48	0.006	8.33	0.0131	0.149	418.	100.03	

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 11 21 20:48	1.44	1.24	0.004<T	8.44	0.0215	0.095	348.	36.20	
2	82 11 22 03:30	4.97	1.22	0.008	8.21	0.0220	0.130	467.	94.50	
3	82 11 22 05:45	5.17	1.07	0.006	8.32	0.0165	0.105	505.	88.50	
4	82 11 22 08:15	4.97	1.14	0.010	8.23	0.0200	0.107	541.	79.60	
5	82 11 22 10:30	4.67	0.75	0.006	8.44	0.0330	0.117	526.	94.20	
6	82 11 22 12:30	4.48	1.20	0.006	8.20	0.0335	0.1[illegible]	558.	69.30	
7	82 11 22 15:22	4.03	1.24	0.004<T	8.29	0.0460	0.110	524.	69.00	
8	82 11 22 19:30	3.38	1.15	0.004<T	8.46	0.0050	0.107	511.	83.[illegible]	
	Minimum :	1.44	0.75	0.004	8.20	0.0050	0.095	348.	36.20	
	Maximum :	5.17	1.24	0.010	8.46	0.0460	0.130	558.	94.50	
	Mean :	4.13	1.12	0.006	8.33	0.0253	0.109	497.	71.90	

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 11 21 12:06	4.13	1.12	0.006	8.48	0.0165	0.075	385.	56.50	
2	82 11 21 12:30	4.61	1.42	0.014	8.47	0.0245	0.117	344.	59.80	
3	82 11 21 20:53	6.02	1.74	0.004<T	8.49	0.0250	0.177	362.	154.00	
4	82 11 22 05:45	8.15	0.61	0.002<T	8.44	0.0090	0.123	435.	113.00	
5	82 11 22 10:30	7.94	1.63	0.006	8.52	0.0700	0.150	445.	134.00	
6	82 11 22 12:30	7.72	1.79	0.008	8.35	0.0840	0.143	416.	114.00	
7	82 11 22 15:38	7.12	2.41	0.006	8.50	0.0120	0.117	415.	105.00	
8	82 11 22 19:30	6.46	1.59	0.002<T	8.51	0.0095	0.100	401.	87.60	
	Minimum :	4.13	0.61	0.002	8.35	0.0090	0.075	344.	56.50	
	Maximum :	8.15	2.41	0.014	8.52	0.0840	0.177	445.	154.00	
	Mean :	6.51	1.53	0.006	8.47	0.0313	0.125	400.	102.98	

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 11 21 11:10	3.73	1.56	0.004<T	8.27	0.0260	0.137	360.	95.50	
2	82 11 21 13:16	4.31	0.82	0.026	8.47	0.0135	0.073	350.	54.60	
3	82 11 21 20:13	7.01	1.00	0.002<T	8.42	0.0205	0.132	384.	109.00	
4	82 11 22 02:00	8.26	2.20	0.006	8.42	0.0100	0.127	401.	122.00	
5	82 11 22 04:30	8.18	2.02	1.040	8.48	0.0390	0.232	421.	187.00	
6	82 11 22 11:30	7.82	2.00	0.010	8.45	0.0120	0.143	434.	110.00	
7	82 11 22 14:15	7.47	1.78	0.010	8.28	0.0225	0.102	435.	48.40	
8	82 11 22 20:15	6.79	1.33	0.014	8.48	0.0570	0.093	496.	75.90	
	Minimum :	3.73	0.82	0.002	8.27	0.0100	0.073	350.	48.40	
	Maximum :	8.26	2.20	1.040	8.48	0.0570	0.232	496.	187.00	
	Mean :	6.69	1.58	0.139	8.40	0.0250	0.129	410.	100.30	

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1	82 11 21 11:50	1.39	2.60	0.002<T	7.87	0.0350	0.202	260.	84.20	
2	82 11 21 13:00	1.76	2.48	0.006	8.13	0.0300	0.153	239.	67.30	
3	82 11 21 14:00	2.00	2.38	0.008	7.95	0.0320	0.113	224.	67.50	
4	82 11 21 15:00	1.39	1.76	0.002<T	7.75	0.0460	0.185	238.	49.60	
5	82 11 21 16:00	1.17	1.52	0.004<T	8.08	0.0390	0.140	239.	51.90	
	Minimum :	1.17	1.52	0.002	7.75	0.0300	0.110	224.	49.60	
	Maximum :	2.00	2.60	0.008	8.13	0.0460	0.202	260.	84.20	
	Mean :	1.54	2.14	0.004	7.95	0.0364	0.164	240.	64.10	

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 3 - NOVEMBER 21 TO NOVEMBER 22, 1982

Bacteria

STATION #1 Taylor Creek @ Don R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 11 21 13:05	1.35	230000	31000		
2	82 11 21 13:55	1.50	13300	7900		
3	82 11 21 16:30	0.97	13400	3500		
4	82 11 21 18:40	0.60	7400	4900		
5	82 11 21 20:28	0.53	5700	4100		
6	82 11 21 22:33	0.46	4300	3700		
	Minimum :	0.46	4300	3500		
	Maximum :	1.50	230000	31000		
	Mean :	0.90	13970	6320		

STATION #2 Don River @ mouth

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	82 11 21 12:04	13.41	39000	21000		
2	82 11 21 14:11	10.81	190000	32000		
3	82 11 21 16:50	9.50	25000	15000		
4	82 11 21 19:10	8.35	11300	9500		
5	82 11 21 23:43	5.95	7900	4400		
	Minimum :	5.95	7900	4400		
	Maximum :	13.41	190000	32000		
	Mean :	9.60	28019	13333		

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1 82 11 21 18:45	9.11	3500	3100		
2 82 11 22 02:30	11.10	1240	1220		
3 82 11 22 04:15	13.16	1240	1060		
4 82 11 22 06:00	13.33	940	1140		
5 82 11 22 11:30	13.96	880	1340		
6 82 11 22 14:00	13.43	820	860		
7 82 11 22 16:00	12.52	800	1100		
8 82 11 22 19:30	11.70	1100	1180		
Minimum :	9.11	800	860		
Maximum :	13.96	3500	3100		
Mean :	12.35	1157	1272		

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1 82 11 21 11:30	3.86	3400	7900		
2 82 11 21 13:05	5.15	9100	7600		
3 82 11 21 14:00	5.77	3900	6100		
4 82 11 21 15:00	4.19	2700	5900		
5 82 11 21 18:15	3.39	2600	6300		
Minimum :	3.39	2600	5900		
Maximum :	5.77	9100	7900		
Mean :	4.47	3762	6711		

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1 82 11 21 11:45	2.51	6500	5900		
2 82 11 21 12:45	3.14	190000	67000		
3 82 11 21 13:45	3.76	75000	36000		
4 82 11 21 14:45	3.46	7300	6900		
5 82 11 21 15:45	2.42	5200	6700		
6 82 11 21 17:45	2.36	3700	7700		
Minimum :	2.36	3700	5900		
Maximum :	3.76	190000	67000		
Mean :	2.94	15336	13105		

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerus #/100mL	P aerus Bckgrnd #/100mL
1	82 11 21 16:15	9.27	1300	2020		
2	82 11 22 02:20	16.23	600	980		
3	82 11 22 03:45	15.89	740	790		
4	82 11 22 05:30	16.31	400	580		
5	82 11 22 07:30	16.31	1360	1580		
6	82 11 22 11:00	16.31	540	1020		
7	82 11 22 13:30	16.31	1080	1300		
8	82 11 22 20:15	13.83	980	1160		
	Minimum :	9.27	400	580		
	Maximum :	16.31	1360	2020		
	Mean :	15.05	807	1102		

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerus #/100mL	P aerus Bckgrnd #/100mL
1	82 11 21 15:30	8.41	1140	1660		
2	82 11 22 01:30	13.66	790	860		
3	82 11 22 05:15	17.26	380	1100		
4	82 11 22 07:00	17.71	1740	1700		
5	82 11 22 09:00	17.71	360	860		
6	82 11 22 10:30	16.89	760	1240		
7	82 11 22 15:15	15.45	1140	1340		
8	82 11 22 20:15	14.14	1320	1420		
	Minimum :	8.41	360	860		
	Maximum :	17.71	1740	1700		
	Mean :	15.15	838	1235		

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerus #/100mL	P aerus Bckgrnd #/100mL
1	82 11 21 20:48	1.44	620	1460		
2	82 11 22 03:30	4.97	320	420		
3	82 11 22 05:45	5.17	220	320		
4	82 11 22 08:15	4.97	720	820		
5	82 11 22 10:30	4.67	1840	1420		
6	82 11 22 12:30	4.48	1390	860		
7	82 11 22 15:22	4.03	1900	2620		
8	82 11 22 19:30	3.38	1480	2440		
	Minimum :	1.44	220	320		
	Maximum :	5.17	1840	2620		
	Mean :	4.13	824	1029		

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1 82 11 21 12:06	4.13	540	1340		
2 82 11 21 12:30	4.61	2100	1780		
3 82 11 21 20:53	6.02	580	1500		
4 82 11 22 05:45	8.15	120(=)	1100		
5 82 11 22 10:30	7.94	1380	1960		
6 82 11 22 12:30	7.72	1200	2520		
7 82 11 22 15:38	7.12	700	1020		
8 82 11 22 19:30	6.46	720	1180		
Minimum :	4.13	120	1020		
Maximum :	8.15	2100	2520		
Mean :	6.51	712	1483		

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1 82 11 21 11:10	3.73	1020	1340		
2 82 11 21 13:16	4.31	560	820		
3 82 11 21 20:13	7.01	590	960		
4 82 11 22 02:00	8.26	860	1320		
5 82 11 22 04:30	8.18	1040	9600		
6 82 11 22 11:30	7.82	540	1790		
7 82 11 22 14:15	7.47	790	940		
8 82 11 22 20:15	6.79	540	700		
Minimum :	3.73	540	700		
Maximum :	8.26	1040	9600		
Mean :	6.69	729	1372		

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1 82 11 21 11:50	1.39	5900	7700		
2 82 11 21 13:00	1.76	4800	5900		
3 82 11 21 14:00	2.00	3300	6300		
4 82 11 21 15:00	1.39	4500	6100		
5 82 11 21 16:00	1.17	4700	5500		
Minimum :	1.17	3300	5500		
Maximum :	2.00	5900	7700		
Mean :	1.54	4562	6259		

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
WET EVENT 3 - NOVEMBER 21 TO NOVEMBER 22, 1982

Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 21 13:05	1.35	0.0002	0.009	0.035	0.080UIC	0.006	0.060	0.130
3	82 11 21 16:30	0.97	0.0006	0.006	0.202	0.040<	0.003	0.043	0.080
	Minimum :	0.46	0.0002	0.006	0.035	0.040	0.003	0.043	0.080
	Maximum :	1.50	0.0006	0.009	0.202	0.080	0.006	0.060	0.130
	Mean :	0.90	0.0004	0.007	0.118	0.060	0.004	0.051	0.105

STATION #2 Don River @ mouth

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 21 12:04	13.41	0.0010	0.010	0.034	0.100UCS	0.008	0.100	0.140
3	82 11 21 16:50	9.50	0.0004	0.013	0.027	0.090UCS	0.008	0.055	0.120
	Minimum :	5.95	0.0004	0.010	0.027	0.090	0.008	0.055	0.120
	Maximum :	13.41	0.0010	0.013	0.034	0.100	0.008	0.100	0.140
	Mean :	9.60	0.0007	0.011	0.030	0.095	0.008	0.077	0.130

STATION #3 Humber River @ Bloor St

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
2	82 11 22 02:30	11.10	0.0002	0.009	0.015	0.040<	0.004	0.016	0.033
4	82 11 22 06:00	13.83	0.0002	0.007	0.019	0.040<	0.004	0.016	0.040
7	82 11 22 16:00	12.52	0.0002	0.006	0.019	0.040<	0.003	0.013	0.029
	Minimum :	9.11	0.0002	0.006	0.015	0.040	0.003	0.013	0.029
	Maximum :	13.96	0.0002	0.009	0.019	0.040	0.004	0.016	0.040
	Mean :	12.35	0.0002	0.007	0.017	0.040	0.003	0.015	0.034

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	82 11 21 11:30	3.86	0.0020<	0.020	0.030	0.040	0.010<	0.030<	0.140
4	82 11 21 15:00	4.19	0.0006	0.027	0.019	0.040	0.004	0.035	0.110
	Minimum :	3.39	0.0006	0.020	0.019	0.040	0.004	0.030	0.110
	Maximum :	5.77	0.0020	0.027	0.030	0.040	0.010	0.035	0.140
	Mean :	4.47	0.0013	0.023	0.024	0.040	0.007	0.032	0.125

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
3	82 11 21 13:45	3.76	0.0009	0.007	0.026	0.050	0.008	0.065	0.094
5	82 11 21 15:45	2.42	0.0007	0.007	0.026	0.040	0.008	0.070	0.089
	Minimum :	2.36	0.0007	0.007	0.026	0.040	0.008	0.065	0.089
	Maximum :	3.76	0.0009	0.007	0.026	0.050	0.008	0.070	0.094
	Mean :	2.94	0.0008	0.007	0.026	0.045	0.008	0.067	0.091

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
2	82 11 22 02:20	16.23	0.0003	0.009	0.020	0.040<	0.004	0.012	0.037
4	82 11 22 05:30	16.31	0.0003	0.008	0.020	0.040<	0.004	0.014	0.034
6	82 11 22 11:00	16.31	0.0002	0.006	0.018	0.040<	0.003	0.012	0.022
	Minimum :	9.27	0.0002	0.006	0.018	0.040	0.003	0.012	0.022
	Maximum :	16.31	0.0003	0.009	0.020	0.040	0.004	0.014	0.037
	Mean :	15.05	0.0002	0.007	0.019	0.040	0.003	0.012	0.031

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
2	82 11 22 01:30	13.66	0.0002	0.007	0.018	0.040<	0.003	0.012	0.030
3	82 11 22 05:15	17.26	0.0002	0.006	0.017	0.040<	0.004	0.011	0.030
6	82 11 22 10:30	16.89	0.0004	0.006	0.020	0.040<	0.036	0.010	0.022
	Minimum :	8.41	0.0002	0.006	0.017	0.040	0.003	0.010	0.022
	Maximum :	17.71	0.0004	0.007	0.020	0.040	0.036	0.012	0.030
	Mean :	15.15	0.0002	0.006	0.018	0.040	0.014	0.011	0.027

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
2 82 11 22 03:30	4.97	0.0003	0.005	0.016	0.040<	0.001<	0.010	0.017
6 82 11 22 12:30	4.48	0.0002	0.004	0.015	0.040<	0.001<	0.005	0.011
7 82 11 22 15:22	4.03	0.0002	0.004	0.015	0.040<	0.001<	0.008	0.009
Minimum :	1.44	0.0002	0.004	0.015	0.040	0.001	0.005	0.009
Maximum :	5.17	0.0003	0.005	0.016	0.040	0.001	0.010	0.017
Mean :	4.13	0.0002	0.004	0.015	0.040	0.001	0.007	0.012

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
2 82 11 21 12:30	4.61	0.0002	0.010	0.016	0.040<	0.003	0.012	0.041
6 82 11 22 12:30	7.72	0.0004	0.007	0.013	0.040<	0.001<	0.005	0.014
7 82 11 22 15:38	7.12	0.0002	0.005	0.130	0.040<	0.001<	0.006	0.010
Minimum :	4.13	0.0002	0.005	0.013	0.040	0.001	0.005	0.010
Maximum :	8.15	0.0004	0.010	0.130	0.040	0.003	0.012	0.041
Mean :	6.51	0.0002	0.007	0.053	0.040	0.001	0.007	0.021

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
2 82 11 21 13:16	4.31	0.0006	0.004	0.017	0.040<	0.002	0.012	0.016
4 82 11 22 02:00	8.26	0.0002	0.004	0.013	0.040<	0.001<	0.006	0.013
7 82 11 22 14:15	7.47	0.0002	0.004	0.011	0.040<	0.001<	0.006	0.013
8 82 11 22 20:15	6.79	0.0003	0.003	0.013	0.040<	0.002	0.003	0.019
Minimum :	3.73	0.0002	0.003	0.011	0.040	0.001	0.003	0.013
Maximum :	8.26	0.0006	0.004	0.017	0.040	0.002	0.012	0.019
Mean :	6.69	0.0003	0.003	0.013	0.040	0.001	0.006	0.015

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 82 11 21 11:50	1.39	0.0005	0.006	0.018	0.050	0.008	0.039	0.079
4 82 11 21 15:00	1.39	0.0005	0.009	0.018	0.040<	0.007	0.120	0.091
Minimum :	1.17	0.0005	0.006	0.018	0.040	0.007	0.039	0.079
Maximum :	2.00	0.0005	0.009	0.018	0.050	0.008	0.120	0.091
Mean :	1.54	0.0005	0.007	0.018	0.045	0.007	0.079	0.085

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STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
5 82 11 21 20:28	0.53	0<W	12	7	16	5	5	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			12	7	16	5	5						
Max. detected :			12	7	16	5	5						
No. detected :		0	1	1	1	1	1	0	0	0	0	0	0

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
4 82 11 21 19:10	8.35	1<W	12	6	8	6	0<W	0<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			12	6	8	6							
Max. detected :			12	6	8	6							
No. detected :		0	1	1	1	1	0	0	0	0	0	0	0

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
2 82 11 22 02:30	11.10	1<W	6	1<W	7	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
7 82 11 22 16:00	12.52	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			4		7								
Max. detected :			6		7								
No. detected :		0	2	0	1	0	0	0	0	0	0	0	0

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 11 21 11:30	3.86	1<W	10	4	4	4	3	2<W	5<W	2<W	4<W	4<W	4<W
4 82 11 21 15:00	4.19	1<W	18	12	18	2<W	2<W	2	5<W	2<W	4<W	4<W	4<W
Min. detected :			10	4	4	4	3	2					
Max. detected :			18	12	18	4	3	2					
No. detected :		0	2	2	2	1	1	1	0	0	0	0	0

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
3 82 11 21 13:45	3.76	1<W	14	8	5	6	6	6	5<W	2<W	4<W	4<W	4<W
5 82 11 21 15:45	2.42	1<W	11	5	4	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			11	5	4	6	6	6					
Max. detected :			14	8	5	6	6	6					
No. detected :		0	2	2	2	1	1	1	0	0	0	0	0

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
2 82 11 22 02:20	16.23	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
3 82 11 22 11:00	16.31	1<W	3	1<W	7	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			3		7								
Max. detected :			4		7								
No. detected :		0	2	0	1	0	0	0	0	0	0	0	0

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
2 82 11 22 01:30	13.66	1<W	4	1<W	7	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 82 11 22 10:30	16.89	1<W	3	1<W	8	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			3		7								
Max. detected :			4		8								
No. detected :		0	2	0	2	0	0	0	0	0	0	0	0

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
2 82 11 22 03:30	4.97	1<W	3	1<W	6	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 82 11 22 12:30	4.48	1<W	3	1<W	3	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			3		3								
Max. detected :			3		6								
No. detected :		0	2	0	2	0	0	0	0	0	0	0	0

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
2 82 11 21 12:30	4.61	1<W	7	4	3	2<W	2<W	2	5<W	2<W	4<W	4<W	4<W
6 82 11 22 12:30	7.72	1<W	2	1<W	4	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			2	4	3			2					
Max. detected :			7	4	4			2					
No. detected :		0	2	1	2	0	0	1	0	0	0	0	0

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
2 82 11 21 13:16	4.31	1<W	3	1<W	2	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
4 82 11 22 02:00	8.26	1<W	3	1<W	6	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			3		2								
Max. detected :			3		6								
No. detected :		0	2	0	2	0	0	0	0	0	0	0	0

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 82 11 21 11:50	1.39	1<W	10	4	16	3	5	2<W	5<W	2<W	4<W	4<W	4<W
4 82 11 21 15:00	1.39	1<W	12	4	10	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			10	4	10	3	5						
Max. detected :			12	4	16	3	5						
No. detected :		0	2	2	2	1	1	0	0	0	0	0	0

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STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
5 82 11 21 20:28	0.53	1<W	1<W	0<W	2<W	5<W	0!UI	5<W	0<W	5<W	50<W	0!UI	200<W
Min. detected :													
Max. detected :													
No. detected :		0	0	0	0	0	0	0	0	0	0	0	0

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
4 82 11 21 19:10	8.35	1<W	0<W	5<W	2<W	5<W	0!UI	5<W	0<W	0<W	50<W	0!UI	200<W
Min. detected :													
Max. detected :													
No. detected :		0	0	0	0	0	0	0	0	0	0	0	0

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
2 82 11 22 02:30	11.10	1<W	1<W	5<W	2<W	5<W	40PE4	5<W	1<W	5<W	50<W	380	200<W
7 82 11 22 16:00	12.52	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :							40					380	
Max. detected :							40					380	
No. detected :		0	0	0	0	0	1	0	0	0	0	1	0

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DD ng/L
1	82 11 21 11:30	3.86	1<W	1<W	0<W	2<W	5<W	0!UI	5<W	0<W	0<W	50<W	0!UI	0<W
4	82 11 21 15:00	4.19	1<W	1<W	5<W	2<W	5<W	0!UI	0<W	1<W	0<W	50<W	0!UI	200<W
Min. detected :														
Max. detected :														
No. detected :			0	0	0	0	0	0	0	0	0	0	0	0

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DD ng/L
3	82 11 21 13:45	3.76	1<W	1<W	0<W	2<W	5<W	0!UI	5<W	0<W	0<W	50<W	0!UI	200<W
5	82 11 21 15:45	2.42	1<W	1<W	5<W	2<W	5<W	0!UI	5<W	0<W	0<W	50<	0!UI	200<W
Min. detected :														
Max. detected :														
No. detected :			0	0	0	0	0	0	0	0	0	0	0	0

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DD ng/L
2	82 11 22 02:20	16.23	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	330	200<W
6	82 11 22 11:00	16.31	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :													330	
Max. detected :													330	
No. detected :			0	0	0	0	0	0	0	0	0	0	1	0

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DD ng/L
2	82 11 22 01:30	13.66	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	290	200<W
6	82 11 22 10:30	16.89	1<W	1<W	5<W	2<W	5<W	40P54	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :								40					290	
Max. detected :								40					290	
No. detected :			0	0	0	0	0	1	0	0	0	0	1	0

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
2 82 11 22 03:30	4.97	1<W	1<W	5<W	2<W	5<W	20<W	5<W	0<W	5<W	50<W	100<W	200<W
6 82 11 22 12:30	4.48	1<W	1<W	5<W	2<W	5<W	20<W	5<W	0<W	5<W	50<W	100<W	200<W
Min. detected :													
Max. detected :													
No. detected :		0	0	0	0	0	0	0	0	0	0	0	0

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
2 82 11 21 12:30	4.61	1<W	1<W	5<W	2<W	5<W	0!UI	5<W	1<W	0<W	50<W	100<W	200<W
6 82 11 22 12:30	7.72	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :													
Max. detected :													
No. detected :		0	0	0	0	0	0	0	0	0	0	0	0

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
2 82 11 21 13:16	4.31	1<W	1<W	5<W	2<W	10	20<W	5<W	1<W	25	50<W	0!UI	200<W
4 82 11 22 02:00	8.26	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :						10				25			
Max. detected :						10				25			
No. detected :		0	0	0	0	1	0	0	0	1	0	0	0

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
1 82 11 21 11:50	1.39	1<W	1<W	5<W	2<W	5<W	30P54	5<W	2	0<W	50<W	0!UI	200<W
4 82 11 21 15:00	1.39	1<W	1<W	5<W	2<W	5<W	0!UI	5<W	2	5<W	50<W	0!UI	200<W
Min. detected :							30		2				
Max. detected :							30		2				
No. detected :		0	0	0	0	0	1	0	2	0	0	0	0

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STATION #1 Taylor Creek @ Don R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
5 82 11 21 20:28	0.53	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :						2						
Max. detected :						2						
No. detected :		0	0	0	0	1	0	0	0	0	0	0

STATION #2 Don River @ mouth

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
4 82 11 21 19:10	8.35	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :						2						
Max. detected :						2						
No. detected :		0	0	0	0	1	0	0	0	0	0	0

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
2 82 11 22 02:30	11.10	100<W	100<W	100<W	50	1<W	100<W	50<W	50<W	50<W	50<W	50<W
7 82 11 22 16:00	12.52	100<W	100<W	100<W	50<W	1<W	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD
Min. detected :					50							
Max. detected :					50							
No. detected :		0	0	0	1	0	0	0	0	0	0	0

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 11 21 11:30	3.86	100<W	100<W	100<W	50<W	3	100<W	50<W	50<W	50<W	50<W	95
4 82 11 21 15:00	4.19	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :						2						95
Max. detected :						3						95
No. detected :		0	0	0	0	2	0	0	0	0	0	1

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
3 82 11 21 13:45	3.76	100<W	100<W	100<W	50<W	3	100<W	50<W	50<W	50<W	50<W	50<W
5 82 11 21 15:45	2.42	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :						3						
Max. detected :						3						
No. detected :		0	0	0	0	1	0	0	0	0	0	0

STATION #6 Humber River @ Scarlett Rd

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
2 82 11 22 02:20	16.23	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
6 82 11 22 11:00	16.31	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												
Max. detected :												
No. detected :		0	0	0	0	0	0	0	0	0	0	0

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
2 82 11 22 01:30	13.66	100<W	100<W	170	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
6 82 11 22 10:30	16.89	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :				170								
Max. detected :				170								
No. detected :		0	0	1	0	0	0	0	0	0	0	0

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
2 82 11 22 03:30	4.97	100<W	100<W	0<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
6 82 11 22 12:30	4.48	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												
Max. detected :												
No. detected :		0	0	0	0	0	0	0	0	0	0	0

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
2 82 11 21 12:30	4.61	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
6 82 11 22 12:30	7.72	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												
Max. detected :												
No. detected :		0	0	0	0	0	0	0	0	0	0	0

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
2 82 11 21 13:16	4.31	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
4 82 11 22 02:00	8.26	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												
Max. detected :												
No. detected :		0	0	0	0	0	0	0	0	0	0	0

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 82 11 21 11:50	1.39	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	140
4 82 11 21 15:00	1.39	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	225
Min. detected :												140
Max. detected :												225
No. detected :		0	0	0	0	0	0	0	0	0	0	2

SPRING RUNOFF DATA

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
SPRING RUNOFF - MARCH 10 TO APRIL 29, 1983

Conventional Water Quality Parameters

STATION #3 Humber River @ Bloor St

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	83 03 10 17:00	3.82	0.00!LP	0.006	7.98	0.0255	0.123	407.	134.00	
2	83 03 17 14:20	2.35	1.19	0.006	8.19	0.0090	0.027	422.	12.60	
3	83 03 18 22:45	7.87		0.510	7.41	0.0520	0.760	548.	397.00	3.40
4	83 03 19 06:20	8.22		0.006	7.45	0.0330	0.362	367.	161.00	3.30
5	83 03 19 13:05	14.10		0.008	7.44	0.0360	0.930	380.	581.00	4.20
6	83 03 19 21:00	14.17		0.008	7.69	0.0400	0.450	396.	594.00	6.20
7	83 03 20 05:00	10.98		0.006	7.77	0.0440	0.540	417.	514.00	6.50
8	83 03 20 11:35	8.12		0.006	7.80	0.0295	0.425	419.	403.00	6.40
9	83 03 20 20:50	4.75		0.004<T	7.83	0.0340	0.452	393.	285.00	5.90
10	83 03 21 05:00	6.45		0.004<T	7.94	0.0290	0.357	383.	188.00	5.90
11	83 03 21 12:00	4.24		0.006	7.98	0.0220	0.250	418.	106.00	5.40
12	83 03 21 22:55	3.62		0.004<T	8.18	0.0795	0.168	454.	69.60	4.80
13	83 03 23 17:50	1.62		0.004<T	8.22	0.0005<T	0.061	775.	23.70	3.80
14	83 03 25 14:50	2.00		0.004<T	8.34	0.0170	0.042	577.	16.90	4.00
15	83 03 25 18:25			0.006	8.28	0.0180	0.034	573.	13.60	3.80
16	83 03 25 22:45	2.65		0.006	8.22	0.0210	0.050	599.	18.80	3.70
17	83 03 26 04:00	2.30		0.004<T	8.13	0.0280	0.066	624.	16.70	3.90
18	83 03 26 09:10	4.33		0.004<T	8.15	0.0160	0.043	743.	16.80	3.90
19	83 03 27 04:15	5.63		0.006	8.27	1.5000	1.520	608.	16.90	3.50
20	83 03 27 08:50	3.30		0.004<T	8.30	0.2200	0.285	534.	20.50	3.70
21	83 03 27 14:50	5.06		0.004<T	7.86	0.0490	0.143	0.	34.90	3.30
22	83 03 27 17:15	6.49		0.006	7.79	0.0460	0.210	854.	70.40	2.50
23	83 03 27 22:15	4.34		0.004<T	7.63	0.0275	0.292	657.	53.10	2.80
24	83 03 28 16:10	5.17		0.004<T	7.98	0.0245	0.145	531.	55.20	3.30
25	83 03 29 07:30	7.23		0.004<T	8.20	0.0280	0.290	465.	146.00	4.00
26	83 03 29 10:55	5.59		0.002<T	8.14	0.0275	0.283	439.	96.10	3.80
27	83 03 29 12:55	4.79		0.002<T	8.16	0.0230	0.230	452.	87.40	3.90
28	83 03 29 15:40	4.68		0.002<T	8.40	0.0240	0.143	455.	69.70	4.00
29	83 03 30 12:50	3.96		0.004<T	8.36	0.0190	0.078	228.	29.40	4.20
30	83 04 06 13:45	5.55		0.006	8.32	0.0170	0.057	406.	34.10	4.50
31	83 04 13 12:50	4.24		0.006	8.24	0.0160	0.150	444.	37.40	4.60
32	83 04 21 15:20	3.00		0.006	8.21	0.0100	0.030	476.	6.01	4.00
33	83 04 28 13:30	2.25		0.004<T	7.94	0.0100	0.020	374.	8.59	3.40
	Minimum :	1.62	1.19	0.002	7.41	0.0005	0.020	0.	6.01	2.50
	Maximum :	14.17	1.19	0.510	8.40	1.5000	1.520	854.	594.00	6.50
	Mean :	5.40	1.19	0.020	8.02	0.0780	0.273	479.	130.83	4.21

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtrs. mg/L	Residue Partic. mg/L	DOC mg/L C
1	83 03 16 17:30	1.51	0.00!LP	0.006	8.08	0.0580	0.103	595.	19.10	
2	83 03 17 15:00	0.30	1.46	0.076	7.76	0.0140	0.034	756.	11.10	
3	83 03 18 23:05	9.31		1.560	7.04	0.0860	1.210	573.	740.00	3.10
4	83 03 19 06:50	12.51		0.056	7.48	0.0390	0.680	369.	193.00	3.50
5	83 03 19 13:35	9.57		0.008	7.53	0.0520	1.410	373.	758.00	5.00
6	83 03 19 21:30	5.15		0.006	7.62	0.0380	0.335	443.	257.00	5.90
7	83 03 20 05:30	3.11		0.006	7.73	0.0260	0.180	512.	135.00	5.80
8	83 03 20 12:05	2.21		0.006	8.02	0.0255	0.110	552.	65.80	5.50
9	83 03 20 21:20	1.67		0.006	8.20	0.0150	0.068	592.	30.60	5.20
10	83 03 21 05:35	1.37		0.004<T	8.13	0.0110	0.048	640.	18.90	5.10
11	83 03 21 12:50	1.19		0.004<T	7.98	0.0180	0.065	777.	11.10	3.80
12	83 03 21 23:15	0.87		0.006	7.87	0.0120	0.030	1026.	6.71	2.30
13	83 03 23 18:25	1.20		0.166	7.67	0.0400	0.122	2336.	17.30	0.00!UI
14	83 03 25 15:30	0.97		0.046	8.07	0.0405	0.095	1203.	11.30	2.00
15	83 03 25 18:45			0.050	8.08	0.0095	0.023	1249.	6.26	1.80
16	83 03 25 23:10	0.99		0.070	8.32	0.0110	0.018	1259.	6.52	2.00
17	83 03 26 04:20	0.90		0.040	7.67	0.0060	0.010	0.!CR	5.95	2.00
18	83 03 26 09:35	0.70		0.110	7.90	0.0065	0.016	1414.	7.08	2.10
19	83 03 27 04:40	1.11		0.108	8.06	0.0055	0.029	1406.	3.70	1.90
20	83 03 27 09:20	0.88		0.062	7.70	0.0060	0.018	1067.	3.74	2.20
21	83 03 27 15:15	3.28		0.340	7.43	0.0360	0.275	1067.	92.80	2.00
22	83 03 27 17:45	3.68		0.730	7.45	0.0270	0.245	1694.	120.00	1.50
23	83 03 27 22:50	3.14		0.440	7.21	0.0100	0.230	1023.	79.60	5.00
24	83 03 28 12:00	4.28		0.004<T	7.28	0.0250	0.190	836.	90.10	2.50
25	83 03 28 22:45	5.23		0.004<T	7.54	0.0350	0.393	528.	214.00	3.60
27	83 03 29 00:15	2.29		0.004<T	7.64	0.0305	0.270	508.	145.00	3.40
28	83 03 29 08:20	1.75		0.004<T	7.94	0.0210	0.240	556.	52.40	3.50
29	83 03 29 13:10	1.18		0.004<T	8.04	0.0160	0.145	614.	31.30	3.20
30	83 03 30 13:15	1.01		0.004<T	8.44	0.0155	0.076	654.	21.80	3.30
31	83 04 06 14:10	0.91		0.062	8.01	0.0045	0.017	762.	7.02	3.40
32	83 04 13 13:10	0.64		0.046	7.96	0.0090	0.022	742.	6.89	3.50
33	83 04 21 16:00	0.47		0.078	7.87	0.0035	0.024	912.	4.63	2.80
34	83 04 28 13:50			0.026	7.85	0.0040	0.014	827.	2.63	3.20
	Minimum :	0.30	1.46	0.004	7.04	0.0035	0.010	369.	2.63	1.50
	Maximum :	12.51	1.46	1.560	8.44	0.0860	1.410	2336.	758.00	5.90
	Mean :	2.75	1.46	0.125	7.80	0.0228	0.204	870.	96.23	3.33

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	83 03 10 15:15	0.78	0.00!LP	0.006	7.94	0.0270	0.048	696.	14.70	
2	83 03 17 13:50	0.27	1.32	0.010	7.81	0.0240	0.058	996.	6.56	
3	83 03 18 16:30	0.38		0.010	7.55	0.0600	0.092	1057.	3.55	3.70
4	83 03 19 00:45	3.82		0.008	7.67	0.0430	0.350	452.	151.00	2.90
5	83 03 19 08:05	9.65		0.006	7.50	0.0340	0.950	292.	337.00	2.20
6	83 03 19 20:20	3.55		0.006	7.61	0.0380	0.350	484.	229.00	4.80
7	83 03 20 04:30	2.17		0.008	8.06	0.0300	0.205	935.	116.00	5.40
8	83 03 20 11:15	1.55		0.006	8.01	0.0280	0.120	672.	76.30	5.30
9	83 03 20 20:15	1.05		0.008	8.19	0.0320	0.107	710.	36.60	4.80
10	83 03 21 04:40	0.80		0.004<T	7.89	0.0220	0.073	781.	19.90	4.60
11	83 03 21 11:35	0.73		0.008	8.00	0.0220	0.091	1254.	16.20	2.80
12	83 03 21 22:10	0.57		0.010	7.74	0.0520	0.100	1617.	14.70	1.70
13	83 03 23 16:10	0.84		0.006	7.86	0.0350	0.125	2658.	33.20	0.00!LI
14	83 03 25 10:15	0.30		0.010	7.98	0.0220	0.052	1468.	6.59	2.00
15	83 03 25 16:05	0.52		0.014	7.12	0.0250	0.085	1448.	20.90	1.90
16	83 03 25 18:00	0.51		0.008	7.94	0.0460	0.120	1456.	12.80	1.90
17	83 03 26 03:35	0.36		0.006	8.13	0.0375	0.103	1465.	8.72	2.10
18	83 03 26 10:20	0.29		0.006	7.82	0.0275	0.049	1426.	4.44	2.10
19	83 03 27 03:40	0.41		0.006	7.92	0.0160	0.041	1367.	5.39	2.00
20	83 03 27 09:55	0.41		0.010	7.97	0.0155	0.028	1307.	4.83	2.20
21	83 03 27 12:45	1.75		0.010	7.48	0.2050	2.720	1493.	68.40	2.20
22	83 03 27 17:00	3.00		0.008	7.69	0.0280	0.280	1185.	142.00	1.70
23	83 03 27 18:50	2.22		0.006	7.55	0.0270	0.227	1003.	71.60	1.80
24	83 03 28 01:15	1.34		0.004<T	7.90	0.0260	0.200	732.	65.30	2.60
25	83 03 28 03:40	1.19		0.006	7.53	0.0180	0.170	942.	31.70	1.70
26	83 03 28 12:00	2.65		0.006	7.83	0.0340	0.116	910.	30.90	2.80
27	83 03 28 13:55	2.46		0.006	7.38	0.0290	0.423	722.	74.40	2.00
28	83 03 28 17:10	2.44		0.004<T	7.49	0.0280	0.318	735.	68.40	2.10
31	83 03 30 12:25	0.63		0.006<T	8.00	0.0280	0.083	930.	9.70	3.00
32	83 04 06 13:25	0.60		0.010	7.75	0.0350	0.050	960.	6.35	3.20
33	83 04 13 12:20	0.73		0.006	8.02	0.0180	0.105	526.	10.50	3.30
34	83 04 21 14:50	0.52		0.006	7.61	0.0380	0.077	1268.	3.94	3.00
35	83 04 28 13:10	0.35		0.008	7.59	0.0200	0.042	1019.	4.84	3.70
	Minimum :	0.27	1.32	0.004	7.12	0.0155	0.028	292.	3.55	1.70
	Maximum :	9.65	1.32	0.014	8.19	0.2050	2.720	2658.	337.00	5.40
	Mean :	1.47	1.32	0.007	7.77	0.0354	0.241	1056.	51.70	2.85

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	83 03 10 14:45	20.76	0.00!LP	0.006	7.94	0.0280	0.181	377.	160.00	
2	83 03 17 13:30	5.09	1.02	0.002<T	8.38	0.0100	0.038	389.	17.80	
3	83 03 18 22:15	16.48		0.014	7.52	0.0370	0.875	462.	141.00	3.40
4	83 03 19 05:40	20.57		0.004	7.55	0.0270	0.232	376.	140.00	3.60
5	83 03 19 12:30	44.02		0.006	7.51	0.0260	0.560	397.	765.00	4.60
6	83 03 19 19:50	64.36		0.008	7.76	0.0390	0.580	407.	610.00	6.30
7	83 03 20 04:10	40.10		0.006	7.80	0.0500	0.940	406.	324.00	6.50
8	83 03 20 10:55	32.77		0.008	7.82	0.0355	0.445	402.	402.00	6.50
9	83 03 20 20:00	25.56		0.004<T	7.99	0.0340	0.390	381.	322.00	5.90
10	83 03 21 04:15	18.70		0.004<T	7.83	0.0290	0.345	396.	195.00	6.10
11	83 03 21 11:05	15.21		0.008	7.99	0.0290	0.195	409.	120.00	5.50
12	83 03 21 21:55	12.04		0.004<T	8.07	0.0330	0.138	434.	76.40	4.90
13	83 03 23 16:35	7.26		0.004<T	8.36	0.0180	0.064	647.	23.20	4.00
14	83 03 25 14:15	5.05		0.008	8.35	0.0190	0.044	492.	16.60	4.10
15	83 03 25 17:50			0.006	8.16	0.0125	0.059	501.	16.40	3.80
16	83 03 25 22:25	5.45		0.004<T	8.25	0.0905	0.135	514.	20.60	3.90
17	83 03 26 03:20	5.71		0.012	8.12	0.0170	0.079	543.	22.00	4.00
18	83 03 26 08:25	4.88		0.004<T	8.16	0.0250	0.069	510.	23.70	4.10
19	83 03 27 03:30	5.90		0.004<T	8.18	0.7400	0.740	520.	21.20	3.70
20	83 03 27 08:20	6.49		0.004<T	8.36	0.0800	0.127	493.	25.30	3.70
21	83 03 27 14:20	8.02		0.006	7.83	0.0285	0.173	631.	45.50	3.40
22	83 03 27 16:45	10.58		0.006	7.95	0.0230	0.102	643.	53.00	3.40
23	83 03 27 21:45	8.74		0.004<T	8.00	0.0555	0.108	554.	43.40	3.50
24	83 03 28 07:05	8.26		0.004<T	8.22	0.0270	0.243	408.	139.00	3.80
25	83 03 28 10:25	11.67		0.020	8.23	0.0260	0.305	421.	113.00	3.80
26	83 03 28 15:45	12.81		0.004<T	7.89	0.0310	0.170	477.	79.60	3.30
29	83 03 29 12:35	16.48		0.002<T	8.11	0.0270	0.230	426.	108.00	3.70
30	83 03 29 15:20	15.63		0.004<T	8.11	0.0270	0.253	441.	92.80	3.60
31	83 03 30 12:10	11.30		0.004<T	7.94	0.0200	0.120	400.	36.20	4.20
32	83 04 06 13:10	12.27		0.004<T	8.21	0.0200	0.063	385.	30.70	4.50
33	83 04 13 12:10	11.67		0.006	8.20	0.0180	0.081	404.	48.40	4.60
34	83 04 21 14:30	5.90		0.008	8.40	0.0100	0.035	433.	7.87	4.00
35	83 04 28 12:55	4.00		0.004<T	8.02	0.0110	0.028	349.	10.40	3.60
	Minimum :	4.00	1.02	0.002	7.51	0.0100	0.028	349.	7.87	3.30
	Maximum :	64.36	1.02	0.020	8.40	0.7400	0.940	647.	765.00	6.50
	Mean :	15.69	1.02	0.005	8.03	0.0516	0.246	455.	134.85	4.32

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	83 03 10 14:20	19.77	0.00!LP	0.004<T	7.91	0.0240	0.202	374.	149.00	
2	83 03 17 12:10	7.67	1.56	0.062<T	8.43	0.0100	0.037	392.	19.90	
3	83 03 18 21:45	14.61		0.008	7.60	0.0390	0.255	440.	173.00	3.40
4	83 03 19 05:15	20.16		0.006	7.55	0.0290	0.353	369.	119.00	3.60
5	83 03 19 12:05	46.92		0.008	7.55	0.0390	0.875	399.	751.00	4.80
6	83 03 19 18:50	72.70		0.008	7.68	0.0440	0.690	397.	597.00	6.20
7	83 03 20 03:25	51.47		0.008	7.73	0.0410	0.640	407.	533.00	6.60
8	83 03 20 08:45	41.48		0.008	7.78	0.0305	0.570	385.	423.00	6.40
9	83 03 20 18:50	28.66		0.004<T	7.80	0.0320	0.425	370.	354.00	6.10
10	83 03 21 03:25	20.96		0.006	7.94	0.0280	0.390	364.	211.00	5.90
11	83 03 21 10:10	17.11		0.004<T	8.18	0.0260	0.230	366.	132.00	5.40
12	83 03 21 21:00	13.93		0.004<T	8.05	0.0330	0.164	373.	81.20	5.20
13	83 03 23 14:15	9.94		0.006	8.10	0.0180	0.073	482.	26.80	4.00
14	83 03 25 13:00	7.37		0.008	8.38	0.0130	0.056	433.	20.00	4.10
15	83 03 25 16:45			0.004<T	8.37	0.0145	0.043	591.	20.00	3.70
16	83 03 25 22:00	8.02		0.004<T	8.29	0.0520	0.087	485.	23.90	4.10
17	83 03 25 23:55			0.004<T	8.27	2.2500	2.650	482.	24.00	3.60
18	83 03 26 02:50	7.67		0.006	8.20	0.0135	0.078	486.	21.70	3.90
19	83 03 26 07:25	7.59		0.004<T	8.14	0.0130	0.041	454.	29.00	4.00
20	83 03 27 07:35	9.25		0.004<T	8.25	0.0665	0.115	426.	45.00	3.90
21	83 03 27 14:00	11.02		0.004<T	8.16	0.0195	0.110	537.	35.50	3.50
22	83 03 27 15:25			0.012	8.11	0.0290	0.118	492.	35.40	3.50
23	83 03 27 16:30	11.65		0.004<T	8.13	0.0245	0.175	632.	52.30	3.40
24	83 03 27 20:45	11.96		0.002<T	7.98	0.0640	0.227	533.	43.60	3.40
25	83 03 28 15:25	14.61		0.004<T	7.98	0.0815	0.228	462.	87.40	3.20
26	83 03 29 06:15	25.11		0.004<T	8.38	0.0270	0.293	414.	89.20	3.80
27	83 03 29 09:50	21.76		0.002<T	8.21	0.0250	0.180	622.	119.00	3.70
28	83 03 29 12:20	19.38		0.010	8.16	0.0265	0.160	29.	62.90	3.60
29	83 03 29 15:05	17.85		0.008	8.22	0.0295	0.150	425.	96.50	3.50
30	83 03 30 11:35	12.93		0.002<T	8.03	0.0105	0.104	385.	29.70	4.20
31	83 04 06 12:55	13.59		0.006	8.16	0.0180	0.065	372.	33.20	4.90
32	83 04 13 11:05	13.93		0.008	8.07	0.0155	0.037	400.	51.90	4.50
33	83 04 21 14:05	8.57		0.004<T	8.32	0.0070	0.030	438.	10.40	4.00
34	83 04 29 12:15	6.74		0.006	8.18	0.0075	0.026	347.	6.02	3.30
	Minimum :	6.74	1.56	0.002	7.55	0.0070	0.026	29.	6.02	3.20
	Maximum :	72.70	1.56	0.062	8.43	2.2500	2.650	632.	751.00	6.60
	Mean :	19.17	1.56	0.007	8.06	0.0941	0.290	428.	132.54	4.29

STATION 49 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt;react mg/L P	Phosphorus Unf;total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	83 03 10 11:35	7.70	0.00!LP	0.004<T	7.74	0.0270	0.139	381.	77.10	
2	83 03 17 11:00	1.94	1.05	0.004<T	8.27	0.0120	0.041	426.	13.30	
3	83 03 18 18:20	2.17		0.012	7.82	0.0175	0.125	465.	17.90	5.10
4	83 03 19 03:55	5.80		0.008	7.54	0.0360	0.283	390.	235.00	4.60
5	83 03 19 11:00	15.24		0.008	7.77	0.0310	0.420	404.	677.00	5.00
6	83 03 19 17:20	30.00		0.010	7.68	0.0450	0.420	388.	765.00	7.20
7	83 03 20 01:00	21.93		0.010	7.71	0.0500	0.405	368.	302.00	8.00
8	83 03 20 08:10	17.19		0.010	7.77	0.0495	0.340	378.	216.00	7.90
9	83 03 20 17:30	10.49		0.006	7.81	0.0505	0.320	357.	145.00	7.90
10	83 03 21 01:10	7.57		0.008	7.98	0.0550	0.270	362.	123.00	9.00
11	83 03 21 08:10	5.17		0.008	7.77	0.0450	0.222	383.	88.20	7.80
12	83 03 21 17:25	5.38		0.006	8.08	0.0410	0.337	386.	65.70	7.10
13	83 03 23 13:00	2.11		0.004<T	8.10	0.0250	0.110	492.	31.30	6.00
14	83 03 25 12:00	0.77		0.004<T	8.16	0.0180	0.088	471.	21.20	5.90
15	83 03 25 15:55			0.006	8.32	0.0150	0.045	555.	13.50	5.00
16	83 03 25 18:15	0.96		0.016	8.18	0.0140	0.085	547.	17.80	5.30
17	83 03 25 23:05			0.006	8.14	0.0115	0.046	541.	16.10	5.10
18	83 03 26 01:50	1.04		0.012	8.05	0.0140	0.061	553.	20.40	6.50
19	83 03 26 06:15	1.02		0.008	8.09	0.0130	0.046	533.	18.20	5.70
20	83 03 27 06:30	0.99		0.004<T	8.14	0.0115	0.044	545.	14.90	5.30
21	83 03 27 15:10	1.68		0.010	7.85	0.0120	0.087	838.	40.40	3.30
22	83 03 27 18:00	1.64		0.004<T	8.10	0.0130	0.066	568.	32.90	3.70
23	83 03 27 21:05	1.52		0.006	7.89	0.0110	0.053	390.	24.10	4.20
24	83 03 28 15:30	2.91		0.006	7.62	0.0390	0.315	448.	61.30	4.20
25	83 03 29 05:25			0.002<W	8.15	0.0185	0.140	410.	64.60	4.20
26	83 03 29 08:15			0.010	8.05	0.0210	0.245	395.	66.70	4.10
27	83 03 29 10:45			0.004<T	7.99	0.0195	0.125	384.	61.70	4.30
28	83 03 29 14:20			0.004<T	7.95	0.0210	0.190	381.	61.60	4.20
29	83 03 30 10:15	2.70		0.004<T	7.73	0.0200	0.134	362.	19.30	5.20
30	83 04 06 11:10	2.10		0.008	8.07	0.0240	0.087	376.	41.90	6.30
31	83 04 13 10:15	1.70		0.010	7.96	0.0250	0.164	402.	56.30	5.90
32	83 04 21 11:05	0.77		0.012	8.37	0.0070	0.091	475.	11.30	5.70
33	83 04 28 10:45	0.44		0.004<T	8.13	0.0090	0.024	435.	4.70	4.60
	Minimum :	0.44	1.05	0.002	7.54	0.0070	0.024	357.	4.70	3.30
	Maximum :	30.00	1.05	0.016	8.37	0.0550	0.420	838.	765.00	9.00
	Mean :	5.66	1.05	0.007	7.96	0.0248	0.168	448.	103.76	5.88

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1	83 03 10 12:15	7.95	0.001LP	0.004<T	7.97	0.0250	0.155	360.	201.00	
2	83 03 17 11:30	1.85	0.79	0.002<T	8.32	0.0130	0.032	368.	16.80	
3	83 03 18 18:45	3.52		0.146	7.67	0.1080	0.255	481.	93.00	3.70
4	83 03 19 04:25	6.96		0.004	8.10	0.0280	0.715	387.	118.00	3.40
5	83 03 19 11:30	16.04		0.006	7.70	0.0310	0.760	380.	832.00	5.30
6	83 03 19 17:45	7.97		0.010	7.89	0.0390	0.650	384.	618.00	5.50
7	83 03 20 01:45	12.04		0.008	7.91	0.0360	0.615	393.	715.00	5.30
8	83 03 20 08:45	17.04		0.008	7.96	0.0210	0.465	415.	315.00	5.10
9	83 03 20 18:00	13.68		0.006	7.99	0.0250	0.515	378.	359.00	5.20
10	83 03 21 01:30	8.96		0.004<T	8.45	0.0240	0.432	371.	243.00	5.00
11	83 03 21 08:25	7.31		0.004<T	8.20	0.0200	0.320	354.	158.00	5.10
12	83 03 21 17:55	4.36		0.002<T	8.26	0.0310	0.240	339.	91.50	4.60
13	83 03 23 13:30	3.22		0.004<T	8.26	0.1920	0.265	454.	28.60	3.60
14	83 03 25 12:20	3.21		0.002<T	8.23	0.0150	0.072	395.	38.00	3.70
15	83 03 25 16:15			0.004<T	8.22	1.3000	1.310	435.	44.60	3.30
16	83 03 25 18:30	3.64		0.006	8.23	0.0245	0.094	420.	34.90	3.40
17	83 03 25 23:25			0.002<T	8.26	0.3200	0.385	486.	21.30	3.30
18	83 03 26 02:10	3.42		0.004<T	8.15	0.0110	0.068	444.	45.00	3.80
19	83 03 26 06:30	3.34		0.004<T	8.19	0.0125	0.056	432.	26.50	3.80
20	83 03 27 07:00	3.98		0.004<T	8.12	0.0245	0.085	399.	50.75	3.50
21	83 03 27 15:35	5.41		0.006	7.82	0.0480	0.212	500.	77.00	3.30
22	83 03 27 18:25	4.82		0.004<T	8.16	0.0510	0.175	431.	45.60	3.40
23	83 03 27 21:30	4.54		0.004<T	8.25	0.0235	0.115	429.	43.80	3.40
24	83 03 28 19:40	11.63		0.004<T	8.22	0.0950	0.450	424.	313.00	4.00
25	83 03 29 06:20			0.004<T	8.08	0.0305	0.410	376.	156.00	3.50
26	83 03 29 08:40			0.004<T	8.22	0.0260	0.243	390.	152.00	3.50
27	83 03 29 11:10			0.006	8.04	0.0285	0.300	404.	130.00	3.30
28	83 03 29 14:35			0.004<T	8.26	0.0375	0.163	395.	113.00	3.50
29	83 03 30 10:40	6.10		0.004<T	8.18	0.0100	0.125	379.	37.70	3.60
30	83 04 06 11:30	7.15		0.004<T	8.21	0.0300	0.057	368.	39.90	4.10
31	83 04 13 10:35	7.10		0.004<T	8.17	0.0125	0.111	374.	54.40	4.20
32	83 04 21 11:25	4.15		0.004<T	8.31	0.0070	0.031	394.	8.98	3.90
33	83 04 28 11:00	2.72		0.006	8.15	0.0140	0.031	324.	6.06	3.20
	Minimum :	1.85	0.79	0.002	7.67	0.0070	0.031	324.	6.06	3.20
	Maximum :	17.04	0.79	0.146	8.45	1.3000	1.310	500.	832.00	5.50
	Mean :	6.74	0.79	0.008	8.12	0.0822	0.300	401.	158.40	3.98

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtra. mg/L	Residue Partic. mg/L	DOC mg/L C
1	83 03 10 10:15	8.95	0.00!LP	0.004<T	8.02	0.0205	0.212	363.	150.00	
2	83 03 17 09:45	3.27	0.56	0.006	8.38	0.0100	0.052	341.	25.70	
3	83 03 18 17:30	3.40		0.006	8.31	0.0065	0.034	364.	19.60	3.10
4	83 03 19 03:00	5.41		0.008	8.04	0.0250	0.272	374.	83.50	4.00
5	83 03 19 10:20	14.64		0.006	7.72	0.0370	1.070	392.	1114.00	5.40
6	83 03 19 16:00	17.12		0.010	7.86	0.0360	0.680	381.	642.00	5.20
7	83 03 19 23:45	16.20		0.010	7.98	0.0400	0.935	399.	730.00	5.40
8	83 03 20 07:10	15.19		0.004<T	7.91	0.0265	0.940	396.	618.00	5.00
9	83 03 20 16:15	12.61		0.006	7.91	0.0240	0.610	0.!LA	375.00	4.90
10	83 03 20 23:50	10.05		0.006	7.94	0.0210	0.315	372.	221.00	4.90
11	83 03 21 07:00	8.25		0.004<T	8.11	0.0190	0.165	357.	164.00	5.40
12	83 03 21 16:00	7.10		0.004<T	8.26	0.0145	0.113	446.	79.70	4.70
13	83 03 23 11:00	4.44		0.004<T	8.15	0.0110	0.057	372.	27.90	3.60
14	83 03 25 11:15	3.18		0.006	8.21	0.0115	0.084	401.	40.70	3.60
15	83 03 25 14:55			0.004<T	8.40	0.0230	0.064	397.	45.70	3.50
16	83 03 25 17:35	3.33		0.004	8.33	0.0100	0.060	391.	46.70	3.40
17	83 03 25 22:10			0.004<T	8.23	0.0125	0.067	395.	65.00	3.50
18	83 03 26 01:00	3.61		0.020	8.17	0.0110	0.059	407.	37.80	3.80
19	83 03 26 05:40	3.22		0.008	8.33	0.0140	0.037	440.	24.60	3.60
20	83 03 27 06:00	3.99		0.002<T	8.13	0.0090	0.095	377.	47.10	3.50
21	83 03 27 14:35	4.29		0.006	8.22	0.0080	0.069	402.	36.10	3.30
22	83 03 27 20:30	4.26		0.002<T	8.09	0.0110	0.058	397.	36.40	3.10
23	83 03 27 23:20	4.16		0.010	8.25	0.0110	0.058	387.	35.60	3.40
24	83 03 28 12:20	5.35		0.004<T	8.11	0.0205	0.160	405.	82.70	3.10
25	83 03 29 00:00	11.52		0.004<T	8.31	0.0300	0.242	377.	190.00	3.70
26	83 03 29 09:00	7.54		0.006	8.31	0.0235	0.197	395.	110.00	3.50
27	83 03 29 14:00	7.54		0.004<T	8.23	0.0255	0.125	384.	149.00	3.70
28	83 03 29 17:35	7.63		0.006	8.18	0.0260	0.200	374.	90.10	3.80
29	83 03 30 08:45	5.78		0.002<T	8.19	0.0110	0.074	359.	33.60	3.70
30	83 04 06 10:15	6.79		0.006	8.17	0.0100	0.010	336.	39.40	4.10
31	83 04 13 09:25	6.83		0.004<T	8.13	0.0100	0.099	341.	59.90	3.90
32	83 04 21 09:40	3.95		0.006	8.29	0.0070	0.049	388.	15.00	3.80
33	83 04 28 10:00	3.00		0.004<T	8.14	0.0070	0.037	333.	9.70	3.30
	Minimum :	3.00	0.56	0.002	7.72	0.0065	0.010	333.	9.70	3.10
	Maximum :	17.12	0.56	0.020	8.40	0.0400	1.070	446.	1114.00	5.40
	Mean :	7.18	0.56	0.005	8.15	0.0176	0.221	382.	164.71	3.96

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf,total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1	83 03 10 16:00	0.58	0.00!LP	0.012	7.99	0.1320	0.163	640.	16.90	
2	83 03 17 13:05	0.20	1.07	0.014	7.93	0.0170	0.043	877.	7.20	
3	83 03 18 16:00	0.21		0.076	8.06	0.0620	0.082	935.	4.70	2.70
4	83 03 19 00:15	2.08		0.004<T	7.29	0.0350	0.810	531.	278.00	3.20
5	83 03 19 07:40	4.71		0.012	7.71	0.0410	0.515	335.	393.00	2.50
6	83 03 19 19:10	2.44		0.008	7.64	0.0380	0.320	480.	268.00	5.00
7	83 03 20 03:05	1.64		0.010	7.83	0.0280	0.455	591.	156.00	5.60
8	83 03 20 10:25	1.11		0.004<T	7.93	0.0275	0.155	618.	80.80	5.60
9	83 03 20 19:30	0.80		0.004<T	8.01	0.0225	0.095	639.	42.50	5.10
10	83 03 21 03:45	0.62		0.004<T	7.92	0.0170	0.063	707.	25.80	5.20
11	83 03 21 10:35	0.53		0.008	8.03	0.0170	0.112	1096.	22.90	3.20
12	83 03 21 21:30	0.84		0.002<T	7.94	0.0415	0.100	1164.	21.50	2.80
13	83 03 23 15:40	0.59		0.046	7.95	0.0260	0.095	2523.	43.70	0.00!UI
14	83 03 25 09:50	0.25		0.040	8.13	0.0130	0.040	1341.	1.78	2.00
15	83 03 25 16:25	0.41		0.036	8.01	0.0260	0.098	1467.	16.20	1.70
16	83 03 25 17:30			0.118	7.94	0.0230	0.097	1407.	14.50	1.80
17	83 03 26 03:05	0.28		0.026	7.98	0.0250	0.049	1295.	11.30	2.10
18	83 03 26 11:00	0.23		0.042	7.98	0.0150	0.032	1327.	5.44	1.90
19	83 03 27 03:10	0.32		0.038	8.08	0.0180	0.084	1212.	8.40	2.00
20	83 03 27 10:25	0.31		0.062	8.00	0.0090	0.085	1537.	26.30	2.10
21	83 03 27 12:30	1.05		0.298	7.19	0.0080	0.500	3191.	174.00	0.00!UI
22	83 03 27 16:15	1.64		0.012	7.77	0.0285	0.427	1135.	124.00	2.40
23	83 03 27 18:20	1.08		0.008	7.30	0.0250	0.482	975.	73.90	2.20
24	83 03 28 07:15	1.02		0.004<T	7.45	0.0165	0.161	881.	35.10	2.10
25	83 03 28 13:30	1.46		0.002<T	7.43	0.0295	0.210	765.	77.50	2.60
26	83 03 28 19:45	1.53		0.006	7.79	0.0320	0.190	695.	80.00	2.80
27	83 03 29 00:50	1.43		0.004<T	7.78	0.0330	0.487	673.	88.40	3.20
28	83 03 29 11:30	0.73		0.002<T	8.10	0.0270	0.107	740.	35.40	3.20
29	83 03 30 11:50	0.45		0.004<T	8.06	0.0060	0.042	836.	17.90	3.10
30	83 04 06 12:00	0.45		0.048	8.06	0.0135	0.083	874.	6.97	3.30
31	83 04 13 11:50	0.44		0.010	7.99	0.0210	0.046	868.	13.30	3.20
32	83 04 21 13:40	0.30		0.012	8.06	0.0350	0.072	1049.	9.30	3.00
33	83 04 28 12:40	0.17		0.004<T	7.82	0.0100	0.025	968.	3.72	3.70
	Minimum :	0.17	1.07	0.002	7.19	0.0060	0.025	335.	1.78	1.70
	Maximum :	4.71	1.07	0.298	8.13	0.1320	0.810	3191.	393.00	5.60
	Mean :	0.93	1.07	0.029	7.95	0.0278	0.191	1038.	66.19	3.07

STATION #12 Cook Creek @ Weston Rd

#	Date and Time	FLOW m3/s	BOD5 mg/L O	NH4 mg/L N	pH	Phosphates Filt,react mg/L P	Phosphorus Unf:total mg/L P	Residue Filtr. mg/L	Residue Partic. mg/L	DOC mg/L C
1	83 03 10 11:00	0.10	0.00!LP	0.002<T	7.70	0.0355	0.097	820.	6.04	
2	83 03 17 10:30	0.07	4.76	0.018	7.82	0.0410	0.144	0.!CR	6.14	
3	83 03 18 17:00	0.10		0.346	7.30	1.5500	6.600	0.!CR	107.00	5.50
4	83 03 19 01:35	0.38		0.056	7.29	0.0780	0.283	397.	77.10	3.90
5	83 03 19 10:00	1.72		0.126	7.62	0.0740	0.330	309.	196.00	3.30
6	83 03 19 16:45	0.43		0.108	7.38	0.2050	0.280	466.	71.60	5.00
7	83 03 20 00:30	0.20		0.006	7.79	0.0380	0.115	460.	43.90	4.70
8	83 03 20 07:40	0.11		0.004<T	8.23	0.0285	0.075	751.	31.40	4.20
9	83 03 20 16:55	0.10		0.004<T	7.88	0.1950	0.390	0.!LA	15.00	3.80
10	83 03 21 00:30	0.08		0.008	8.05	0.0560	0.117	896.	8.65	3.50
11	83 03 21 07:40	0.07		0.006	8.12	0.0230	0.058	1032.	10.70	3.10
12	83 03 21 16:50	0.09		0.008	7.57	0.1500	0.420	1241.	13.90	2.10
13	83 03 23 17:10	0.19		0.384	7.31	0.6500	2.200	2787.	169.00	0.00!UI
14	83 03 25 10:45	0.08		0.004<T	7.53	0.9700	3.900	1083.	31.30	2.20
15	83 03 25 15:30	0.16		0.006	7.76	0.0695	0.237	1239.	35.20	2.20
16	83 03 25 16:50			0.054	7.29	0.1000	0.460	1457.	113.00	2.40
17	83 03 25 22:40	0.08		0.006	7.52	0.0300	0.100	1103.	19.60	2.40
18	83 03 26 01:30			0.016	7.58	0.0545	0.149	1255.	13.00	2.20
19	83 03 26 12:00	0.07		0.004	7.93	0.0220	0.114	1281.	7.88	2.00
20	83 03 27 10:55	0.18		0.160	7.41	0.0080	0.300	2429.	100.00	0.00!UI
21	83 03 27 12:00	0.55		0.256	7.33	0.0180	0.467	1616.	168.00	3.50
22	83 03 27 16:15	0.79		0.242	7.27	0.0750	0.200	715.	68.10	2.40
23	83 03 27 18:55	0.46		0.010	7.50	0.0540	0.139	627.	30.30	2.90
24	83 03 28 06:10	0.24		0.004<T	7.94	0.0295	0.058	919.	8.22	2.70
25	83 03 28 14:05	0.59		0.004<T	7.68	0.0405	0.113	725.	15.80	2.80
26	83 03 28 16:30	0.47		0.220	7.46	0.0540	0.225	516.	149.00	3.30
27	83 03 28 20:25	0.29		0.004<T	7.49	0.0710	0.247	505.	98.50	3.50
28	83 03 29 07:00	0.09		0.004<T	7.95	0.0620	0.212	601.	43.80	3.30
29	83 03 30 09:20	0.08		0.004<T	7.92	0.0280	0.078	363.	22.70	2.40
30	83 04 06 10:45	0.09		0.004<T	7.79	0.0260	0.052	1026.	10.10	2.60
31	83 04 13 09:55	0.09		0.012	7.82	0.0290	0.066	984.	13.20	2.50
32	83 04 21 10:35	0.07		0.004<T	8.08	0.0230	0.071	1108.	5.90	2.80
33	83 04 28 10:20	0.08		0.004<T	7.67	0.5200	0.720	991.	9.29	3.90
	Minimum :	0.07	4.76	0.002	7.27	0.0080	0.052	309.	5.90	2.00
	Maximum :	1.72	4.76	0.384	8.23	1.5500	6.600	2787.	196.00	5.50
	Mean :	0.27	4.76	0.063	7.66	0.1650	0.576	996.	52.10	3.13

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
SPRING RUNOFF - MARCH 10 TO APRIL 28, 1983

Bacteria

STATION #3 Humber River @ Bloor St

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	83 03 10 17:00	3.82	240	260	10<	20<=>
2	83 03 17 14:20	2.35	40<=>	20<	10<	10<
4	83 03 19 06:20	8.22	1360	780	60<=>	240
5	83 03 19 13:05	14.10	1900	1300	60<=>	360
6	83 03 19 21:00	14.17	840	540	20<=>	580
8	83 03 20 11:35	8.12	620	440	60<=>	260
9	83 03 20 20:50	4.75	340	260	20<=>	40<=>
11	83 03 21 12:00	4.24	520	120<=>	20<	20<
12	83 03 21 22:55	3.62	560	80<=>	20<=>	20<
13	83 03 23 17:50	1.62	110	70<=>	10<	10<=>
15	83 03 25 18:25		50<=>	30<=>	10<	10<
16	83 03 25 22:45	2.65	160	40<=>	10<=>	30<=>
17	83 03 26 04:00	2.30	180	110	10<	10<=>
19	83 03 27 04:15	5.63	220	60<=>	10<	10<
21	83 03 27 14:50	5.06	4900	1700	50<=>	10<=>
22	83 03 27 17:15	6.49	8900	2600	150	210
23	83 03 27 22:15	4.34	720	620	30<=>	90<=>
24	83 03 28 16:10	5.17	660	440	20<=>	90<=>
25	83 03 29 07:30	7.23	340	400	10<=>	40<=>
26	83 03 29 10:55	5.59	240	160<=>	10<	30<=>
27	83 03 29 12:55	4.79	60<=>	80<=>	10<	10<
28	83 03 29 15:40	4.68	100<=>	180<=>	10<	70<=>
29	83 03 30 12:50	3.96	80<=>	70<=>	10<=>	10<
30	83 04 06 13:45	5.55	70<=>	20<=>	10<=>	10<
31	83 04 13 12:50	4.24	320	40<=>	10<	10<
32	83 04 21 15:20	3.00	60<=>	60<=>	10<	10<
33	83 04 28 13:30	2.25	20<	80<=>	10<	20<=>
	Minimum :	1.62	20	20	10	10
	Maximum :	14.17	8900	2600	150	580
	Mean :	5.40	278	163	17	32

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	83 03 10 17:30	1.51	100<=>	2700	10<	10<
2	83 03 17 15:00	0.30	20<	20<=>	10<	10<
4	83 03 19 06:50	12.51	600	860	20<	290
5	83 03 19 13:35	9.57	1000	200	20<	240
6	83 03 19 21:30	5.15	320<=>	660	20<	60<=>
8	83 03 20 12:05	2.21	160<=>	140<=>	20<	20<=>
9	83 03 20 21:20	1.67	240	40<=>	20<	20<
11	83 03 21 12:50	1.19	40<=>	100<=>	20<	20<=>
12	83 03 21 23:15	0.87	660	460	20<	20<
13	83 03 23 18:25	1.20	130	2500<=>	60<=>	10<
15	83 03 25 13:45		30<=>	40<=>	10<=>	10<
16	83 03 25 23:10	0.99	30<=>	70<=>	10<	10<=>
17	83 03 26 04:20	0.90	80<=>	1230	10<	10<
19	83 03 27 04:40	1.11	160<=>	720	10<	10<
21	83 03 27 15:15	3.28	140<=>	660	10<=>	110
22	83 03 27 17:45	3.68	980	1180	50<=>	90<=>
23	83 03 27 22:50	3.14	120<=>	660	10<	120
24	83 03 28 12:00	4.28	620	760	30<=>	90<=>
26	83 03 28 23:35	4.72	380	780	10<	180
27	83 03 29 00:15	2.29	120<=>	900	10<=>	160
28	83 03 29 08:20	1.75	140<=>	540	10<	40<=>
29	83 03 29 13:10	1.18	40<=>	80<=>	10<=>	20<=>
30	83 03 30 13:15	1.01	290	710	50<=>	300
31	83 04 06 14:10	0.91	10<=>	160	40<=>	10<=>
32	83 04 13 13:10	0.64	110	160	10<	10<
33	83 04 21 16:00	0.47	60<=>	1500<=>	70<=>	240
34	83 04 28 13:50		20<	420	10<	10<=>
	Minimum :	0.30	10	20	10	10
	Maximum :	12.51	1000	2700	70	300
	Mean :	2.75	131	363	17	36

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerus #/100mL	P aerus Bckgrnd #/100mL
1	83 03 10 15:15	0.78	560	540	120	20<=>
2	83 03 17 13:50	0.27	80<=>	40<=>	10<=>	20<=>
4	83 03 19 00:45	3.82	1200	1900	80<=>	500
5	83 03 19 08:05	9.65	11900	4100	300	1680
6	83 03 19 20:20	3.55	1440	1580	90<=>	160<=>
8	83 03 20 11:15	1.55	1020	280	60<=>	40<=>
9	83 03 20 20:15	1.05	1260	220	20<	20<
11	83 03 21 11:35	0.73	1660	220	220	20<=>
12	83 03 21 22:10	0.57	2800	180<=>	60<=>	20<
13	83 03 23 16:10	0.34	1580	220	110	30<=>
15	83 03 25 16:05	0.52	260	80<=>	30<=>	10<=>
16	83 03 25 18:00	0.51	960	100<=>	40<=>	70<=>
17	83 03 26 03:35	0.36	2100	780	100	20<=>
19	83 03 27 03:40	0.41	880	380	10<=>	20<=>
21	83 03 27 12:45	1.75	69000	12100	1210	410
22	83 03 27 17:00	3.00	4800	2900	390	110
23	83 03 27 18:50	2.22	3700	1100	90<=>	20<=>
25	83 03 28 03:40	1.19	520	270	20<=>	180
27	83 03 28 13:55	2.46	2600	600<=>	460	120
28	83 03 28 17:10	2.44	2500	1800	140	420
29	83 03 29 01:15	1.81	1220	300	70<=>	480
30	83 03 29 12:00	1.04	380	160<=>	90<=>	60<=>
31	83 03 30 12:25	0.63	300	240	50<=>	20<=>
32	83 04 06 13:25	0.60	680	160<=>	40<=>	10<
33	83 04 13 12:20	0.73	400	50<=>	40<=>	10<=>
34	83 04 21 14:50	0.52	3900	1300	50<=>	100
35	83 04 28 13:10	0.35	320	140<=>	20<=>	20<=>
	Minimum :	0.27	80	40	10	10
	Maximum :	9.65	69000	12100	1210	1680
	Mean :	1.47	1280	419	72	56

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerus #/100mL	P aerus Bcksrnd #/100mL
1	83 03 10 14:45	20.76	240	340	10<	20<=>
2	83 03 17 13:30	5.09	20<	20<	10<	10<
4	83 03 19 05:40	20.57	460	780	20<=>	340
5	83 03 19 12:30	44.02	1060	820	20<=>	520
6	83 03 19 19:50	64.36	680	780	20<	280
8	83 03 20 10:55	32.77	300	1160	20<	320
9	83 03 20 20:00	25.56	340	300	20<	20<=>
11	83 03 21 11:05	15.21	300	240	80<=>	20<
12	83 03 21 21:55	12.04	340	80<=>	20<	20<
13	83 03 23 16:35	7.26	20<=>	20<=>	10<	10<
15	83 03 25 17:50		10<=>	90<=>	10<	10<
16	83 03 25 22:25	5.45	70<=>	20<=>	10<	10<
17	83 03 26 03:20	5.71	110	530	10<	10<
19	83 03 27 03:30	5.90	80<=>	60<=>	10<	10<
21	83 03 27 14:20	8.02	1760	780	20<=>	10<
22	83 03 27 16:45	10.58	1120	340	20<=>	50<=>
23	83 03 27 21:45	8.74	540	260	10<	10<=>
24	83 03 28 15:45	12.81	200	320	10<=>	160
27	83 03 29 07:05	21.04	260	300	10<	110
28	83 03 29 10:25	18.70	60<=>	140<=>	10<	10<=>
29	83 03 29 12:35	16.48	220	540	10<	30<=>
30	83 03 29 15:20	15.63	80<=>	360	10<	40<=>
31	83 03 30 12:10	11.30	30<=>	80<=>	10<	10<=>
32	83 04 06 13:10	12.27	20<=>	20<=>	10<	50<=>
33	83 04 13 12:10	11.67	50<=>	20<=>	10<	30<=>
34	83 04 21 14:30	5.90	110	30<=>	10<	10<
35	83 04 28 12:55	4.00	60<=>	180<=>	10<	10<
	Minimum :	4.00	10	20	10	10
	Maximum :	64.36	1760	1160	80	520
	Mean :	15.69	145	165	13	29

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	83 03 10 14:20	19.77	100<=>	320	10<	70<=>
2	83 03 17 12:10	7.67	20<=>	20<	10<	10<
4	83 03 19 05:15	20.16	560	640	20<	200
5	83 03 19 12:05	46.92	440	720	20<	320
6	83 03 19 18:50	72.70	600	1520	20<=>	260
8	83 03 20 08:45	41.48	600	2100	20<	140<=>
9	83 03 20 18:50	28.66	240	220	40<=>	240
11	83 03 21 10:10	17.11	280	220	20<	20<
12	83 03 21 21:00	13.93	140<=>	40<=>	20<	20<
13	83 03 23 14:15	9.94	10<=>	50<=>	10<	10<=>
15	83 03 25 16:45		20<=>	70<=>	10<	10<
16	83 03 25 22:00	8.02	20<=>	10<=>	10<	10<
17	83 03 25 23:55		90<=>	40<=>	10<	10<
18	83 03 26 02:50	7.67	80<=>	110	10<	10<
21	83 03 27 14:00	11.02	20<=>	140<=>	10<	10<=>
22	83 03 27 15:25		440	260	10<	30<=>
23	83 03 27 16:30	11.65	500	240	10<=>	20<=>
24	83 03 27 20:45	11.96	420	320	10<=>	20<=>
25	83 03 28 15:25	14.61	140<=>	180<=>	10<=>	140
26	83 03 29 06:15	25.11	280	300	10<=>	50<=>
27	83 03 29 09:50	21.76	160<=>	60<=>	10<	100
28	83 03 29 12:20	19.38	220	1560	40<=>	40<=>
29	83 03 29 15:05	17.85	60<=>	740	10<	60<=>
30	83 03 30 11:35	12.93	70<=>	90<=>	10<	30<=>
31	83 04 06 12:55	13.59	40<=>	20<=>	10<	10<=>
32	83 04 13 11:05	13.93	30<=>	10<	10<	10<
33	83 04 21 14:05	8.57	130	60<=>	10<	10<
34	83 04 28 12:15	6.74	60<=>	60<=>	10<	10<
	Minimum :	6.74	10	10	10	10
	Maximum :	72.70	600	2100	40	320
	Mean :	19.17	114	142	13	32

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	83 03 10 11:35	7.70	160<=>	220	10<	80<=>
2	83 03 17 11:00	1.94	20<	20<	10<	10<
4	83 03 19 03:55	5.80	460	540	20<	360
5	83 03 19 11:00	15.24	320	500	20<	200
6	83 03 19 17:20	30.00	800	1940	20<	620
8	83 03 20 08:10	17.19	820	8400	20<=>	420
9	83 03 20 17:30	10.49	520	500	20<	20<=>
11	83 03 21 08:10	5.17	340	320	20<	20<
12	83 03 21 17:25	5.38	100<=>	160<=>	20<	20<=>
13	83 03 23 13:00	2.11	10<	10<	10<	10<
15	83 03 25 15:55		260	10<	10<	10<
16	83 03 25 18:15	0.96	20<=>	20<=>	10<	10<
17	83 03 25 23:05		140	60<=>	10<	10<
18	83 03 26 01:50	1.04	250	20<=>	10<	10<
21	83 03 27 15:10	1.68	420	220	10<	10<
22	83 03 27 18:00	1.64	800	360	20<=>	10<=>
23	83 03 27 21:05	1.52	580	220	10<	10<
24	83 03 28 15:30	2.91	200	340	10<	120
25	83 03 29 05:25		120<=>	80<=>	10<	40<=>
26	83 03 29 08:15		220	220	10<	90<=>
27	83 03 29 10:45		80<=>	180<=>	10<	90<=>
28	83 03 29 14:20		100<=>	140<=>	10<	10<=>
29	83 03 30 10:15	2.70	60<=>	260	10<	50<=>
30	83 04 06 11:10	2.10	20<=>	100	10<=>	130
31	83 04 13 10:15	1.70	20<=>	920	10<	20<=>
32	83 04 21 11:05	0.77	40<=>	50<=>	10<	10<
33	83 04 28 10:45	0.44	60<=>	40<=>	10<	10<
	Minimum :	0.44	10	10	10	10
	Maximum :	30.00	820	8400	20	620
	Mean :	5.66	137	155	12	32

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerus #/100mL	P aerus Bckgrnd #/100mL
1	83 03 10 12:15	7.95	200	300	10<	100
2	83 03 17 11:30	1.85	20<	20<	10(=)	10<
4	83 03 19 04:25	6.96	1100	340	20(=)	80(=)
5	83 03 19 11:30	16.04	760	1280	60(=)	1320
6	83 03 19 17:45	7.97	400	900	20(=)	200
8	83 03 20 08:45	17.04	340	940	20<	200
9	83 03 20 18:00	13.68	300	160(=)	20(=)	20(=)
11	83 03 21 08:25	7.31	220	60(=)	20<	20<
12	83 03 21 17:55	4.36	300	40(=)	20<	20(=)
13	83 03 23 13:30	3.22	20(=)	30(=)	10<	10(=)
15	83 03 25 16:15		50(=)	50(=)	10<	10<
16	83 03 25 18:30	3.64	60(=)	10<	10<	10<
17	83 03 25 23:25		70(=)	40(=)	10<	10<
18	83 03 26 02:10	3.42	140	70(=)	10<	10<
21	83 03 27 15:35	5.41	80(=)	240	10<	50(=)
22	83 03 27 18:25	4.82	400	220	20(=)	30(=)
23	83 03 27 21:30	4.54	300	260	10<	10<
24	83 03 28 19:40	11.63	280	1080	10<	180
25	83 03 29 06:20		140(=)	340	20(=)	80(=)
26	83 03 29 08:40		240	1440	10(=)	60(=)
27	83 03 29 11:10		80(=)	1220	10<	110
28	83 03 29 14:35		100(=)	420	10(=)	150
29	83 03 30 10:40	6.10	20(=)	10(=)	10<	10(=)
30	83 04 06 11:30	7.15	30(=)	30(=)	10<	10(=)
31	83 04 13 10:35	7.10	70(=)	30(=)	10(=)	20(=)
32	83 04 21 11:25	4.15	100	10(=)	10<	10<
33	83 04 28 11:00	2.72	40(=)	20<	10<	10<
	Minimum :	1.85	20	10	10	10
	Maximum :	17.04	1100	1440	60	1320
	Mean :	6.74	127	122	13	33

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	83 03 10 10:15	8.95	320	500	10<	40<=>
2	83 03 17 09:45	3.27	20<	20<=>	10<	10<
4	83 03 19 03:00	5.41	440	100<=>	20<	80<=>
5	83 03 19 10:20	14.64	900	900	20<	620
6	83 03 19 16:00	17.12	540	1260	20<	60<=>
8	83 03 20 07:10	15.19	320	1140	20<	60<=>
9	83 03 20 16:15	12.61	420	180<=>	20<	60<=>
11	83 03 21 07:00	8.25	140<=>	40<=>	20<	40<=>
12	83 03 21 16:00	7.10	100<=>	20<=>	20<	20<
13	83 03 23 11:00	4.44	30<=>	10<	10<	10<
15	83 03 25 14:55		10<	10<=>	10<	10<
16	83 03 25 17:35	3.33	30<=>	10<=>	10<	10<
17	83 03 25 22:10		10<=>	10<=>	10<	10<
18	83 03 26 01:00	3.61	290	70<=>	10<	10<
21	83 03 27 14:35	4.28	320	20<=>	10<	10<
22	83 03 27 20:30	4.26	300	40<=>	10<	10<
23	83 03 27 23:20	4.16	340	20<=>	10<	10<
24	83 03 28 12:20	5.35	240	140<=>	10<=>	50<=>
25	83 03 29 00:00	11.52	240	260	30<=>	70<=>
26	83 03 29 09:00	7.54	100<=>	1500	10<	170
27	83 03 29 14:00	7.54	140<=>	320	30<=>	90<=>
28	83 03 29 17:35	7.63	200	140<=>	10<	100
29	83 03 30 08:45	5.78	20<=>	10<=>	10<	30<=>
30	83 04 06 10:15	6.79	70<=>	10<=>	10<	10<=>
31	83 04 13 09:25	6.83	10<=>	20<=>	10<	10<
32	83 04 21 09:40	3.95	20<=>	10<=>	10<	10<
33	83 04 28 10:00	3.00	40<=>	20<	10<	10<=>
	Minimum :	3.00	10	10	10	10
	Maximum :	17.12	900	1500	30	620
	Mean :	7.18	105	62	13	27

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	83 03 10 16:30	0.58	600	330	10<=>	50<=>
2	83 03 17 13:05	0.20	80<=>	20<	10<=>	10<
4	83 03 19 00:15	2.09	1280	740	20<=>	360
5	83 03 19 07:40	4.71	660	1320	60<=>	360
6	83 03 19 19:10	2.44	1580	1090	20<	140<=>
8	83 03 20 10:25	1.11	860	520	20<	120<=>
9	83 03 20 19:30	0.80	420	120<=>	20<	20<
11	83 03 21 10:35	0.53	760	340	100<=>	20<=>
12	83 03 21 21:30	0.84	2400	140<=>	120<=>	20<
13	83 03 23 15:40	0.59	440	180<=>	70<=>	310
15	83 03 25 16:25	0.41	160<=>	140<=>	20<=>	10<=>
16	83 03 25 17:30		300	120<=>	30<=>	10<=>
17	83 03 26 03:05	0.29	920	260	60<=>	30<=>
19	83 03 27 03:10	0.32	480	100<=>	50<=>	20<=>
21	83 03 27 12:30	1.05	740	840	30<=>	150
22	83 03 27 16:15	1.64	1080	1060	60<=>	330
23	83 03 27 18:20	1.08	1460	500	40<=>	150
24	83 03 28 07:15	1.02	520	220	10<	80<=>
25	83 03 28 13:30	1.46	1260	420	170	210
26	83 03 28 19:45	1.53	1300	660	300	170
27	83 03 29 00:50	1.43	1900	580	90<=>	190
28	83 03 29 11:30	0.73	360	160<=>	30<=>	70<=>
29	83 03 30 11:50	0.45	140<=>	120<=>	20<=>	30<=>
30	83 04 06 12:00	0.45	200	240	40<=>	30<=>
31	83 04 13 11:50	0.44	210	50<=>	10<=>	10<
32	83 04 21 13:40	0.30	620	120<=>	80<=>	80<=>
33	83 04 28 12:40	0.17	320	30<=>	30<=>	60<=>
	Minimum :	0.17	80	20	10	10
	Maximum :	4.71	2400	1320	300	360
	Mean :	0.93	574	251	37	61

STATION #12 Cook Creek @ Weston Rd

#	Date and Time	FLOW m3/s	Fecal Coliform #/100mL	Fecal Strep #/100mL	P aerug #/100mL	P aerug Bckgrnd #/100mL
1	83 03 10 11:00	0.10	660	380	10<	30<=>
2	83 03 17 10:30	0.07	640	260	90<=>	40<=>
4	83 03 19 01:35	0.88	520	560	20<	140<=>
5	83 03 19 10:00	1.72	300	620	20<=>	420
6	83 03 19 16:45	0.43	290	680	20<	40<=>
8	83 03 20 07:40	0.11	200	100<=>	20<=>	20<=>
9	83 03 20 16:55	0.10	120<=>	40<=>	20<	20<
11	83 03 21 07:40	0.07	200	40<=>	20<=>	20<
12	83 03 21 16:50	0.09	440	80<=>	20<=>	20<
13	83 03 23 17:10	0.19	1600	1000	20<	200
15	83 03 25 15:30	0.16	600	290	10<	10<
16	83 03 25 16:50		2160	780	90<=>	10<=>
17	83 03 25 22:40	0.08	920	240	20<=>	30<=>
18	83 03 26 01:30		2860	2080	30<=>	10<
21	83 03 27 12:00	0.55	1800	300	10<=>	90<=>
22	83 03 27 16:15	0.79	700	1620	30<=>	80<=>
23	83 03 27 18:55	0.46	13100	1140	20<=>	70<=>
24	83 03 28 06:10	0.24	280	200	10<	50<=>
25	83 03 28 14:05	0.59	120<=>	230	30<=>	230
26	83 03 28 16:30	0.47	700	5000	100	950
27	83 03 28 20:25	0.29	460	980	40<=>	370
28	83 03 29 07:00	0.09	700	400	30<=>	160
29	83 03 30 09:20	0.08	220	100<=>	10<	10<
30	83 04 06 10:45	0.09	3200	20<=>	10<	10<
31	83 04 13 09:55	0.09	110	10<=>	20<=>	10<
32	83 04 21 10:35	0.07	460	220	10<=>	10<
33	83 04 28 10:20	0.08	1220	860	40<=>	40<=>
	Minimum :	0.07	110	10	10	10
	Maximum :	1.72	13100	5000	100	950
	Mean :	0.27	603	302	22	45

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
SPRING RUNOFF - MARCH 10 TO APRIL 28, 1983

Inorganic Parameters (Metals)

STATION #3 Humber River @ Bloor St

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	83 03 10 17:00	3.82	0.0007	0.007	0.015		0.008	0.009	0.020
2	83 03 17 14:20	2.35	0.0006	0.002	0.009		0.003	0.003<	0.001<
3	83 03 18 22:45	7.87	0.0020	0.019	0.059		0.020	0.230	0.250
4	83 03 19 06:20	8.22	0.0009	0.030	0.027		0.015	0.059	0.100
5	83 03 19 13:05	14.10	0.0020	0.025	0.038		0.028	0.064	0.110
6	83 03 19 21:00	14.17	0.0020	0.020	0.034		0.028	0.031	0.073
7	83 03 20 05:00	10.98	0.0010	0.015	0.029		0.023	0.017	0.051
8	83 03 20 11:35	8.12	0.0010	0.013	0.024		0.019	0.014	0.038
9	83 03 20 20:50	4.75	0.0010	0.010	0.022		0.016	0.011	0.034
10	83 03 21 05:00	6.45	0.0008	0.007	0.020		0.012	0.010	0.025
11	83 03 21 12:00	4.24	0.0007	0.005	0.017		0.007	0.009	0.018
12	83 03 21 22:55	3.62	0.0004	0.004	0.012		0.005	0.003<	0.012
13	83 03 23 17:50	1.62	0.0002<	0.004	0.013		0.003	0.008	0.012
14	83 03 25 14:50	2.00	0.0006	0.004	0.012		0.004	0.005	0.013
15	83 03 25 18:25		0.0005	0.002	0.010		0.002	0.003	0.009
16	83 03 25 22:45	2.65	0.0006	0.003	0.018		0.003	0.006	0.014
17	83 03 26 04:00	2.30	0.0020	0.009	0.022		0.009	0.048	0.015
18	83 03 26 09:10	4.35	0.0002<	0.002	0.011		0.002	0.004	0.012
19	83 03 27 04:15	5.63	0.0006	0.005	0.014		0.004	0.007	0.027
20	83 03 27 08:50	3.30	0.0005	0.004	0.012		0.003	0.004	0.013
21	83 03 27 14:50	5.06	0.0006	0.004	0.018		0.004	0.033	0.035
23	83 03 27 22:15	4.34	0.0006	0.009	0.020		0.006	0.042	0.052
25	83 03 29 07:30	7.23	0.0002<	0.003	0.009		0.001<	0.003<	0.020
27	83 03 29 12:55	4.79	0.0006	0.005	0.015		0.006	0.004	0.016
29	83 03 30 12:50	3.96	0.0004	0.003	0.013		0.003	0.003	0.002
30	83 04 06 13:45	5.55	0.0004	0.003	0.022		0.003	0.003<	0.008
31	83 04 13 12:50	4.24	0.0004	0.010	0.019		0.010	0.010	0.018
32	83 04 21 15:20	3.00	0.0006	0.002	0.024		0.001	0.003<	0.007
	Minimum :	1.62	0.0002	0.002	0.009		0.001	0.003	0.001
	Maximum :	14.17	0.0020	0.030	0.059		0.028	0.230	0.250
	Mean :	5.40	0.0007	0.008	0.019		0.008	0.023	0.035

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	83 03 10 17:30	1.31	0.0007	0.007	0.013		0.003	0.006	0.027
2	83 03 17 15:00	0.30	0.0006	0.001<	0.013		0.003	0.006	0.009
3	83 03 18 23:05	9.31	0.0030	0.031	0.070		0.024	0.250	0.410
4	83 03 19 06:50	12.51	0.0020	0.031	0.042		0.026	0.092	0.200
5	83 03 19 13:35	9.57	0.0020	0.040	0.043		0.038	0.061	0.190
6	83 03 19 21:30	5.15	0.0010	0.020	0.024		0.017	0.020	0.093
7	83 03 20 05:30	3.11	0.0006	0.010	0.016		0.007	0.012	0.046
8	83 03 20 12:05	2.21	0.0007	0.009	0.014		0.006	0.008	0.035
9	83 03 20 21:20	1.67	0.0006	0.007	0.014		0.004	0.006	0.030
10	83 03 21 05:35	1.37	0.0006	0.006	0.016		0.004	0.005	0.025
11	83 03 21 12:50	1.19	0.0007	0.025	0.023		0.002	0.006	0.025
12	83 03 21 23:15	0.87	0.0009	0.012	0.016		0.009	0.009	0.023
13	83 03 23 18:25	1.20	0.0004	0.005	0.024		0.003	0.019	0.040
14	83 03 25 15:30	0.87	0.0009	0.006	0.018		0.004	0.011	0.032
15	83 03 25 18:45		0.0007	0.008	0.016		0.008	0.009	0.032
16	83 03 25 23:10	0.99	0.0006	0.005	0.019		0.004	0.006	0.030
17	83 03 26 04:20	0.90	0.0002<	0.006	0.022		0.002	0.006	0.032
18	83 03 26 09:35	0.70	0.0002	0.004	0.023		0.003	0.006	0.038
19	83 03 27 04:40	1.11	0.0008	0.007	0.017		0.004	0.009	0.039
20	83 03 27 09:20	0.38	0.0007	0.005	0.020		0.004	0.006	0.050
21	83 03 27 15:15	3.28	0.0010	0.014	0.039		0.012	0.110	0.160
23	83 03 27 22:50	3.14	0.0010	0.018	0.024		0.008	0.058	0.120
25	83 03 28 22:45	5.23	0.0010	0.017	0.027		0.010	0.036	0.091
28	83 03 29 08:20	1.75	0.0005	0.008	0.015		0.005	0.009	0.048
30	83 03 30 13:15	1.01	0.0005	0.009	0.020		0.002	0.005	0.021
31	83 04 06 14:10	0.91	0.0005	0.008	0.015		0.004	0.003	0.018
32	83 04 13 13:10	0.64	0.0007	0.020	0.034		0.010	0.009	0.024
33	83 04 21 16:00	0.47	0.0008	0.004	0.025		0.002	0.008	0.015
	Minimum :	0.30	0.0002	0.001	0.013		0.002	0.003	0.009
	Maximum :	12.51	0.0030	0.040	0.070		0.039	0.250	0.410
	Mean :	2.75	0.0009	0.012	0.023		0.008	0.028	0.068

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	83 03 10 15:15	0.78	0.0006	0.012	0.018		0.008	0.010	0.030
2	83 03 17 13:50	0.27	0.0005	0.001<	0.025		0.008	0.006	0.028
3	83 03 18 16:30	0.38	0.0007	0.016	0.024		0.006	0.008	0.055
4	83 03 19 00:45	3.82	0.0010	0.014	0.037		0.019	0.140	0.160
5	83 03 19 08:05	9.65	0.0020	0.023	0.047		0.027	0.160	0.200
6	83 03 19 20:20	3.55	0.0008	0.018	0.025		0.017	0.040	0.077
7	83 03 20 04:30	2.17	0.0006	0.015	0.029		0.012	0.024	0.070
8	83 03 20 11:15	1.55	0.0007	0.010	0.019		0.009	0.012	0.038
9	83 03 20 20:15	1.05	0.0006	0.008	0.018		0.007	0.009	0.030
10	83 03 21 04:40	0.80	0.0006	0.008	0.018		0.006	0.009	0.028
11	83 03 21 11:35	0.73	0.0007	0.007	0.018		0.005	0.007	0.034
12	83 03 21 22:10	0.57	0.0008	0.011	0.019		0.007	0.008	0.034
13	83 03 23 16:10	0.84	0.0030	0.012	0.033		0.015	0.092	0.058
14	83 03 25 10:15	0.30	0.0006	0.015	0.021		0.008	0.009	0.047
15	83 03 25 16:05	0.52	0.0007	0.004	0.024		0.010	0.031	0.053
16	83 03 25 18:00	0.51	0.0007	0.008	0.022		0.007	0.019	0.050
17	83 03 26 03:35	0.36	0.0002<	0.013	0.028		0.005	0.031	0.051
18	83 03 26 10:20	0.29	0.0009	0.010	0.022		0.006	0.012	0.038
19	83 03 27 03:40	0.41	0.0008	0.009	0.020		0.006	0.011	0.055
20	83 03 27 09:55	0.41	0.0007	0.011	0.024		0.006	0.011	0.048
21	83 03 27 12:45	1.75	0.0010	0.014	0.042		0.010	0.120	0.130
23	83 03 27 18:50	2.22	0.0020	0.013	0.039		0.012	0.170	0.170
27	83 03 28 13:55	2.46	0.0008	0.012	0.032		0.012	0.076	0.110
29	83 03 29 01:15	1.81	0.0006	0.010	0.020		0.008	0.026	0.053
31	83 03 30 12:25	0.63	0.0004	0.007	0.022		0.010	0.004	0.022
32	83 04 06 13:25	0.60	0.0005	0.008	0.030		0.006	0.003	0.029
33	83 04 13 12:20	0.73	0.0003	0.012	0.029		0.007	0.012	0.054
34	83 04 21 14:50	0.52	0.0007	0.010	0.038		0.005	0.018	0.038
	Minimum :	0.27	0.0002	0.001	0.018		0.005	0.003	0.022
	Maximum :	9.65	0.0030	0.023	0.047		0.027	0.170	0.200
	Mean :	1.47	0.0008	0.011	0.026		0.009	0.038	0.063

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	83 03 10 14:45	20.76	0.0006	0.008	0.019		0.009	0.006	0.024
2	83 03 17 13:30	5.09	0.0010	0.002	0.012		0.002	0.006	0.001<
3	83 03 18 22:15	16.48	0.0010	0.010	0.032		0.010	0.100	0.120
4	83 03 19 05:40	20.57	0.0009	0.028	0.022		0.012	0.040	0.082
5	83 03 19 12:30	44.02	0.0020	0.026	0.037		0.030	0.047	0.100
6	83 03 19 19:50	64.36	0.0020	0.020	0.034		0.031	0.027	0.070
7	83 03 20 04:10	40.10	0.0006	0.016	0.027		0.017	0.003<	0.049
8	83 03 20 10:55	32.77	0.0010	0.012	0.023		0.019	0.011	0.036
9	83 03 20 20:00	25.56	0.0007	0.009	0.022		0.013	0.007	0.030
10	83 03 21 04:15	18.70	0.0005	0.006	0.018		0.010	0.005	0.022
11	83 03 21 11:05	15.21	0.0008	0.005	0.016		0.008	0.010	0.013
12	83 03 21 21:55	12.04	0.0007	0.004	0.013		0.007	0.005	0.012
13	83 03 23 16:35	7.26	0.0010	0.004	0.014		0.006	0.018	0.010
14	83 03 25 14:15	5.05	0.0006	0.004	0.013		0.004	0.006	0.013
15	83 03 25 17:50		0.0005	0.002	0.011		0.002	0.005	0.010
16	83 03 25 22:25	5.45	0.0008	0.006	0.015		0.004	0.008	0.014
17	83 03 26 03:20	5.71	0.0002<	0.002	0.012		0.002	0.005	0.008
18	83 03 26 08:25	4.88	0.0002<	0.003	0.013		0.002	0.004	0.013
19	83 03 27 03:30	5.90	0.0006	0.004	0.012		0.004	0.007	0.013
20	83 03 27 08:20	6.49	0.0004	0.003	0.013		0.004	0.003<	0.008
21	83 03 27 14:20	8.02	0.0009	0.006	0.020		0.005	0.048	0.046
23	83 03 27 21:45	8.74	0.0007	0.019	0.017		0.006	0.030	0.040
27	83 03 29 07:05	21.04	0.0005	0.004	0.014		0.005	0.003<	0.013
29	83 03 29 12:35	16.48	0.0000!NS	0.000!NS	0.000!NS		0.000!NS	0.000!NS	0.000!NS
31	83 03 30 12:10	11.30	0.0005	0.003	0.010		0.003	0.003<	0.003
32	83 04 06 13:10	12.27	0.0006	0.003	0.024		0.003	0.003<	0.009
33	83 04 13 12:10	11.67	0.0005	0.007	0.024		0.007	0.008	0.016
34	83 04 21 14:30	5.90	0.0005	0.002	0.019		0.001<	0.003<	0.004
	Minimum :	4.00	0.0002	0.002	0.010		0.001	0.003	0.001
	Maximum :	64.36	0.0020	0.028	0.037		0.031	0.100	0.120
	Mean :	15.69	0.0007	0.008	0.018		0.008	0.015	0.028

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	83 03 10 14:20	19.77	0.0006	0.006	0.016		0.011	0.008	0.015
2	83 03 17 12:10	7.67	0.0002<	0.002	0.011		0.003	0.009	0.001<
3	83 03 18 21:45	14.61	0.0008	0.015	0.026		0.009	0.081	0.140
4	83 03 19 05:15	20.16	0.0008	0.031	0.023		0.011	0.038	0.100
5	83 03 19 12:05	46.92	0.0010	0.028	0.037		0.028	0.036	0.087
6	83 03 19 18:50	72.70	0.0010	0.019	0.032		0.027	0.020	0.067
7	83 03 20 03:25	51.47	0.0010	0.016	0.031		0.026	0.011	0.050
8	83 03 20 08:45	41.48	0.0010	0.012	0.023		0.018	0.015	0.036
9	83 03 20 18:50	28.66	0.0008	0.009	0.021		0.014	0.009	0.028
10	83 03 21 03:25	20.96	0.0007	0.007	0.017		0.011	0.008	0.021
11	83 03 21 10:10	17.11	0.0005	0.004	0.013		0.006	0.005	0.013
12	83 03 21 21:00	13.93	0.0006	0.004	0.013		0.005	0.009	0.017
13	83 03 23 14:15	9.94	0.0009	0.003	0.014		0.008	0.017	0.008
14	83 03 25 13:00	7.37	0.0006	0.002	0.011		0.004	0.003	0.006
15	83 03 25 16:45		0.0006	0.003	0.012		0.005	0.007	0.010
16	83 03 25 22:00	8.02	0.0005	0.006	0.011		0.004	0.004	0.011
17	83 03 25 23:55		0.0005	0.003	0.011		0.004	0.005	0.010
18	83 03 26 02:50	7.67	0.0002<	0.003	0.011		0.002	0.004	0.007
19	83 03 26 07:25	7.59	0.0002<	0.002	0.009		0.003	0.003<	0.005
20	83 03 27 07:35	9.25	0.0004	0.003	0.013		0.004	0.003<	0.008
21	83 03 27 14:00	11.02	0.0006	0.005	0.017		0.004	0.024	0.026
24	83 03 27 20:45	11.96	0.0007	0.022	0.019		0.006	0.033	0.044
28	83 03 29 12:20	19.38	0.0004	0.004	0.017		0.006	0.003	0.013
30	83 03 30 11:35	12.93	0.0004	0.002	0.012		0.002	0.003<	0.001<
31	83 04 06 12:55	13.59	0.0003	0.003	0.010		0.003	0.003<	0.005
32	83 04 13 11:05	13.93	0.0005	0.026	0.019		0.016	0.008	0.009
33	83 04 21 14:05	8.57	0.0004	0.002	0.010		0.001<	0.003<	0.004
34	83 04 28 12:15	6.74	0.0004	0.004	0.017		0.001	0.003<	0.005
	Minimum :	6.74	0.0002	0.002	0.009		0.001	0.003	0.001
	Maximum :	72.70	0.0010	0.031	0.037		0.028	0.081	0.140
	Mean :	19.17	0.0005	0.008	0.017		0.008	0.013	0.026

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	83 03 10 11:35	7.70	0.0005	0.004	0.012		0.006	0.005	0.010
2	83 03 17 11:00	1.94	0.0002<	0.002	0.010		0.004	0.003<	0.015
3	83 03 18 18:20	2.17	0.0006	0.004	0.016		0.004	0.047	0.052
4	83 03 19 03:55	5.80	0.0007	0.008	0.022		0.011	0.042	0.074
5	83 03 19 11:00	15.24	0.0007	0.010	0.022		0.016	0.030<	0.052
6	83 03 19 17:20	30.00	0.0010	0.012	0.022		0.019	0.013	.0.045
7	83 03 20 01:00	21.93	0.0008	0.011	0.023		0.017	0.004	0.036
8	83 03 20 08:10	17.19	0.0009	0.009	0.019		0.015	0.006	0.031
9	83 03 20 17:30	10.49	0.0007	0.008	0.017		0.012	0.003	0.026
10	83 03 21 01:10	7.57	0.0005	0.005	0.014		0.009	0.006	0.020
11	83 03 21 08:10	5.17	0.0007	0.005	0.014		0.008	0.045	0.022
12	83 03 21 17:25	5.38	0.0007	0.004	0.014		0.007	0.004	0.026
13	83 03 23 13:00	2.11	0.0009	0.003	0.014		0.006	0.012	0.008
14	83 03 25 12:00	0.77	0.0006	0.011	0.011		0.003	0.003<	0.008
15	83 03 25 15:55		0.0005	0.002	0.012		0.003	0.006	0.008
16	83 03 25 18:15	0.96	0.0006	0.002	0.013		0.004	0.015	0.013
17	83 03 25 23:05		0.0006	0.002	0.012		0.003	0.009	0.013
18	83 03 26 01:50	1.04	0.0002<	0.002	0.012		0.002	0.005	0.029
19	83 03 26 06:15	1.02	0.0002	0.003	0.018		0.002	0.003	0.018
20	83 03 27 06:30	0.98	0.0004	0.002	0.014		0.003	0.027	0.009
21	83 03 27 15:10	1.68	0.0006	0.005	0.022		0.004	0.055	0.050
23	83 03 27 21:05	1.52	0.0007	0.007	0.012		0.003	0.008	0.013
25	83 03 29 05:25		0.0004	0.003	0.013		0.004	0.009	0.010
27	83 03 29 10:45		0.0005	0.004	0.014		0.004	0.003<	0.011
29	83 03 30 10:15	2.70	0.0003	0.003	0.013		0.003	0.003<	0.023
30	83 04 06 11:10	2.10	0.0005	0.003	0.019		0.005	0.084	0.012
31	83 04 13 10:15	1.70	0.0005	0.008	0.018		0.008	0.008	0.016
32	83 04 21 11:05	0.77	0.0020	0.004	0.024		0.003	0.005	0.008
33	83 04 28 10:45	0.44	0.0010	0.003	0.023		0.003	0.015	0.019
	Minimum :	0.44	0.0002	0.002	0.010		0.002	0.003	0.008
	Maximum :	30.00	0.0020	0.012	0.024		0.019	0.084	0.074
	Mean :	5.66	0.0006	0.005	0.016		0.006	0.016	0.023

STATION #9 Main Humber R @ W Humber R

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	83 03 10 12:15	7.95	0.0006	0.008	0.018		0.012	0.008	0.020
2	83 03 17 11:30	1.85	0.0002<	0.007	0.010		0.002	0.003<	0.004
3	83 03 18 18:45	3.52	0.0009	0.046	0.033		0.009	0.120	0.180
4	83 03 19 04:25	6.96	0.0009	0.051	0.022		0.012	0.026	0.048
5	83 03 19 11:30	16.04	0.0020	0.032	0.045		0.041	0.034	0.093
6	83 03 19 17:45	7.97	0.0010	0.020	0.034		0.027	0.021	0.064
7	83 03 20 01:45	12.04	0.0010	0.018	0.035		0.025	0.022	0.065
8	83 03 20 08:45	17.04	0.0010	0.014	0.029		0.023	0.014	0.042
9	83 03 20 18:00	13.68	0.0008	0.011	0.024		0.016	0.009	0.032
10	83 03 21 01:30	8.96	0.0003	0.006	0.017		0.010	0.004	0.024
11	83 03 21 08:25	7.31	0.0006	0.004	0.014		0.006	0.007	0.010
12	83 03 21 17:55	4.36	0.0006	0.004	0.016		0.006	0.007	0.012
13	83 03 23 13:30	3.22	0.0006	0.004	0.012		0.004	0.006	0.003
14	83 03 25 12:20	3.21	0.0004	0.003	0.011		0.003	0.003<	0.007
15	83 03 25 16:15		0.0006	0.004	0.012		0.005	0.006	0.011
16	83 03 25 18:30	3.64	0.0005	0.004	0.012		0.005	0.006	0.010
17	83 03 25 23:25		0.0005	0.002	0.011		0.004	0.004	0.008
18	83 03 26 02:10	3.42	0.0002<	0.002	0.010		0.003	0.003	0.006
19	83 03 26 06:30	3.34	0.0002<	0.002	0.010		0.002	0.003	0.005
20	83 03 27 07:00	3.98	0.0005	0.003	13.000		0.004	0.003<	0.006
21	83 03 27 15:35	5.41	0.0007	0.020	0.024		0.009	0.056	0.068
23	83 03 27 21:30	4.54	0.0007	0.011	0.013		0.005	0.008	0.017
25	83 03 29 06:20		0.0005	0.005	0.016		0.007	0.003<	0.018
27	83 03 29 11:10		0.0006	0.004	0.018		0.006	0.003<	0.016
29	83 03 30 10:40	6.10	0.0004	0.002	0.014		0.002	0.003<	0.013
30	83 04 06 11:30	7.15	0.0004	0.003	0.012		0.003	0.003<	0.004
31	83 04 13 10:35	7.10	0.0004	0.012	0.017		0.008	0.008	0.017
32	83 04 21 11:25	4.15	0.0004	0.006	0.015		0.002	0.003<	0.003
33	83 04 28 11:00	2.72	0.0004	0.002	0.200		0.001<	0.003<	0.003
	Minimum :	1.85	0.0002	0.002	0.010		0.001	0.003	0.003
	Maximum :	17.04	0.0020	0.051	13.000		0.041	0.120	0.180
	Mean :	6.74	0.0006	0.010	0.472		0.009	0.013	0.027

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1 83 03 10 10:15	8.95	0.0004	0.006	0.019		0.009	0.008	0.015
2 83 03 17 09:45	3.27	0.0002<	0.002	0.012		0.002	0.003<	0.006
3 83 03 18 17:30	3.40	0.0004	0.001<	0.009		0.002	0.005	0.002
4 83 03 19 03:00	5.41	0.0007	0.008	0.019		0.011	0.007	0.022
5 83 03 19 10:20	14.64	0.0020	0.024	0.040		0.036	0.026	0.076
6 83 03 19 16:00	17.12	0.0010	0.018	0.033		0.028	0.020	0.055
7 83 03 19 23:45	16.20	0.0010	0.017	0.036		0.026	0.017	0.054
8 83 03 20 07:10	15.19	0.0012	0.012	0.029		0.020	0.017	0.038
9 83 03 20 16:15	12.61	0.0007	0.009	0.021		0.015	0.008	0.027
10 83 03 20 23:50	10.05	0.0004	0.006	0.018		0.010	0.004	0.020
11 83 03 21 07:00	9.25	0.0004	0.004	0.015		0.007	0.003	0.012
12 83 03 21 15:00	7.10	0.0006	0.004	0.014		0.004	0.007	0.013
13 83 03 23 11:00	4.44	0.0004	0.001	0.010		0.002	0.003<	0.001<
14 83 03 25 11:15	3.18	0.0005	0.002	0.012		0.003	0.004	0.009
15 83 03 25 14:55		0.0004	0.002	0.012		0.003	0.003	0.006
16 83 03 25 17:35	3.33	0.0003	0.024	0.011		0.005	0.004	0.009
17 83 03 25 22:10		0.0005	0.003	0.012		0.004	0.004	0.007
18 83 03 26 01:00	3.61	0.0002<	0.003	0.010		0.002	0.003<	0.004
19 83 03 26 05:40	3.22	0.0002<	0.002	0.010		0.003	0.005	0.008
20 83 03 27 06:00	3.98	0.0005	0.006	0.013		0.003	0.003<	0.007
21 83 03 27 14:35	4.28	0.0005	0.002	0.012		0.004	0.004	0.009
23 83 03 27 23:20	4.16	0.0003	0.002	0.014		0.003	0.005	0.006
26 83 03 29 09:00	7.54	0.0020	0.006	0.020		0.012	0.039	0.011
29 83 03 30 08:45	5.78	0.0003	0.002	0.013		0.003	0.003<	0.001<
30 83 04 06 10:15	6.79	0.0005	0.002	0.010		0.003	0.003<	0.006
31 83 04 13 09:25	6.83	0.0003	0.004	0.030		0.005	0.008	0.046
32 83 04 21 09:40	3.95	0.0006	0.001	0.014		0.003	0.003<	0.002
33 83 04 28 10:00	3.00	0.0004	0.002	0.022		0.001	0.003<	0.003
Minimum :	3.00	0.0002	0.001	0.009		0.001	0.003	0.001
Maximum :	17.12	0.0020	0.024	0.040		0.036	0.039	0.076
Mean :	7.18	0.0006	0.006	0.017		0.008	0.007	0.017

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	83 03 10 16:00	0.58	0.0006	0.007	0.015		0.008	0.008	0.024
2	83 03 17 13:05	0.20	0.0002<	0.006	0.016		0.006	0.008	0.014
3	83 03 18 16:00	0.21	0.0005	0.001<	0.015		0.006	0.009	0.018
4	83 03 19 00:15	2.08	0.0010	0.017	0.037		0.026	0.120	0.150
5	83 03 19 07:40	4.71	0.0010	0.027	0.049		0.031	0.160	0.210
6	83 03 19 19:10	2.44	0.0008	0.011	0.027		0.017	0.030	0.088
7	83 03 20 03:05	1.64	0.0006	0.013	0.023		0.013	0.023	0.054
8	83 03 20 10:25	1.11	0.0006	0.008	0.017		0.008	0.012	0.032
9	83 03 20 19:30	0.80	0.0006	0.006	0.020		0.008	0.013	0.034
10	83 03 21 03:45	0.62	0.0006	0.006	0.021		0.007	0.010	0.028
11	83 03 21 10:35	0.33	0.0007	0.005	0.016		0.006	0.012	0.027
12	83 03 21 21:30	0.84	0.0002<	0.004	0.016		0.003	0.003<	0.029
13	83 03 23 15:40	0.59	0.0005	0.005	0.020		0.006	0.053	0.066
14	83 03 25 09:50	0.25	0.0007	0.004	0.018		0.006	0.010	0.036
15	83 03 25 16:25	0.41	0.0006	0.009	0.021		0.006	0.016	0.037
16	83 03 25 17:30		0.0006	0.005	0.021		0.009	0.028	0.070
17	83 03 26 03:05	0.28	0.0002<	0.005	0.021		0.004	0.011	0.033
18	83 03 26 11:00	0.23	0.0009	0.004	0.017		0.007	0.012	0.036
19	83 03 27 03:10	0.32	0.0006	0.005	0.016		0.005	0.010	0.040
20	83 03 27 10:25	0.31	0.0010	0.007	0.032		0.008	0.098	0.100
21	83 03 27 12:30	1.05	0.0030	0.013	0.070		0.020	0.340	0.290
23	83 03 27 18:20	1.08	0.0009	0.009	0.027		0.010	0.090	0.110
27	83 03 29 00:50	1.43	0.0006	0.013	0.026		0.009	0.027	0.055
29	83 03 30 11:50	0.45	0.0006	0.004	0.021		0.004	0.008	0.036
30	83 04 06 12:00	0.45	0.0020	0.004	0.034		0.005	0.014	0.026
31	83 04 13 11:50	0.44	0.0004	0.007	0.025		0.007	0.012	0.024
32	83 04 21 13:40	0.30	0.0007	0.005	0.025		0.004	0.012	0.029
33	83 04 28 12:40	0.17	0.0006	0.002	0.024		0.005	0.008	0.026
	Minimum :	0.17	0.0002	0.001	0.015		0.003	0.003	0.014
	Maximum :	4.71	0.0030	0.027	0.070		0.031	0.340	0.290
	Mean :	0.93	0.0007	0.007	0.024		0.009	0.041	0.061

STATION #12 Cook Creek @ Weston Rd.

#	Date and Time	FLOW m3/s	Cadmium mg/L Cd	Chromium mg/L Cr	Copper mg/L Cu	Mercury ug/L Hg	Nickel mg/L Ni	Lead mg/L Pb	Zinc mg/L Zn
1	83 03 10 11:00	0.10	0.0008	0.220	0.022		0.033	0.006	0.075
2	83 03 17 10:30	0.07	0.0007	0.050	0.020		0.008	0.007	0.067
3	83 03 18 17:00	0.10	0.0010	0.900	0.036		0.014	0.110	0.190
4	83 03 19 01:35	0.88	0.0010	0.230	0.028		0.016	0.047	0.120
5	83 03 19 10:00	1.72	0.0010	0.160	0.048		0.027	0.100	0.190
6	83 03 19 16:45	0.43	0.0010	0.120	0.074		0.029	0.120	0.250
7	83 03 20 00:30	0.20	0.0006	0.160	0.020		0.012	0.010	0.110
8	83 03 20 07:40	0.11	0.0005	0.077	0.016		0.007	0.006	0.079
9	83 03 20 16:55	0.10	0.0006	0.160	0.018		0.007	0.005	0.065
10	83 03 21 00:30	0.08	0.0006	0.072	0.016		0.008	0.011	0.084
11	83 03 21 07:40	0.07	0.0006	0.001<	0.015		0.007	0.003<	0.080
12	83 03 21 16:50	0.09	0.0006	0.062	0.017		0.007	0.007	0.063
13	83 03 23 17:10	0.19	0.0020	0.730	0.090		0.035	0.170	0.290
14	83 03 25 10:45	0.08	0.0008	0.500	0.019		0.008	0.003<	0.079
15	83 03 25 15:30	0.16	0.0008	0.053	0.028		0.010	0.035	0.091
16	83 03 25 16:50		0.0010	0.055	0.042		0.015	0.054	0.130
17	83 03 25 22:40	0.08	0.0008	0.024	0.021		0.008	0.014	0.075
18	83 03 26 01:30		0.0006	0.033	0.035		0.007	0.010	0.070
19	83 03 26 12:00	0.07	0.0002<	0.028	0.019		0.005	0.007	0.059
20	83 03 27 10:55	0.18	0.0020	0.022	0.058		0.012	0.230	0.220
21	83 03 27 12:00	0.55	0.0020	0.055	0.056		0.016	0.220	0.260
22	83 03 27 16:15	0.79	0.0010	0.110	0.037		0.018	0.077	0.130
29	83 03 30 09:20	0.08	0.0007	0.050	0.029		0.006	0.004	0.074
30	83 04 06 10:45	0.09	0.0004	0.120	0.021		0.007	0.004	0.073
31	83 04 13 09:55	0.09	0.0006	0.084	0.030		0.010	0.010	0.082
32	83 04 21 10:35	0.07	0.0005	0.150	0.025		0.007	0.004	0.076
33	83 04 28 10:20	0.08	0.0002	0.020	0.036		0.012	0.003<	0.140
	Minimum :	0.07	0.0002	0.001	0.015		0.005	0.003	0.059
	Maximum :	1.72	0.0020	0.900	0.090		0.035	0.230	0.290
	Mean :	0.27	0.0008	0.157	0.032		0.013	0.047	0.119

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
SPRING RUNOFF - MARCH 10 TO APRIL 28, 1983

Pesticides and Organic Parameters

STATION #3 Humber River @ Bloor St

#	Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1	83 03 10 17:00	3.82	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
2	83 03 17 14:20	2.35	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
3	83 03 18 22:45	7.87	1<W	3	1<W	1<W	7	5	2<W	5<W	2<W	4<W	4<W	4<W
4	83 03 19 06:20	8.22	1<W	10	1<W	2	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6	83 03 19 21:00	14.17	1<W	8	1<W	2	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4P54
7	83 03 20 05:00	10.98	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2	4<W	4<W	4<W
9	83 03 20 20:50	4.75	1<W	3	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
10	83 03 21 05:00	6.45	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
13	83 03 23 17:50	1.62	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
14	83 03 25 14:50	2.00	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
18	83 03 26 09:10	4.35	1<W	3	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
20	83 03 27 08:50	3.30	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
23	83 03 27 22:15	4.34	1<W	3	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
25	83 03 29 07:30	7.23	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
29	83 03 30 12:50	3.96	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
30	83 04 06 13:45	5.55	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
31	83 04 13 12:50	4.24	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
32	83 04 21 15:20	3.00	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
33	83 04 28 13:30	2.25	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :				2		2	7	5			2			4
Max. detected :				10		2	7	5			2			4
No. detected :			0	9	0	2	1	1	0	0	1	0	0	1

STATION #4 Mimico Creek @ mouth

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 83 03 10 17:30	1.51	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
2 83 03 17 15:00	0.30	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
3 83 03 18 23:05	9.31	1<W	5	1<W	2	3	4	2<W	5<W	2<W	4<W	4<W	4<W
4 83 03 19 06:50	12.51	1<W	3	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 83 03 19 21:30	5.15	1<W	15	1<W	5	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
7 83 03 20 05:30	3.11	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
9 83 03 20 21:20	1.67	1<W	5	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
10 83 03 21 05:35	1.37	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
13 83 03 23 18:25	1.20	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
14 83 03 25 15:30	0.87	1<W	12	2	5	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
18 83 03 26 09:35	0.70	1<W	6	1<W	2	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
20 83 03 27 09:20	0.88	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
23 83 03 27 22:50	3.14	1<W	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW
25 83 03 28 22:45	5.23	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD
30 83 03 30 13:15	1.01	1<W	4<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
31 83 04 06 14:10	0.91	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
32 83 04 13 13:10	0.64	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
33 83 04 21 16:00	0.47	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
34 83 04 28 13:50		1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			3	2	2	3	4						
Max. detected :			15	2	5	3	4						
No. detected :		0	9	1	4	1	1	0	0	0	0	0	0

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 83 03 10 15:15	0.78	1<W	1<W	1<W	1<W	2<W	2<W	0<W	5<W	2<W	4<W	4<W	4<W
2 83 03 17 13:50	0.27	1<W	1<W	1<W	1<W	2<W	2<W	6	5<W	2<W	4<W	4<W	4<W
3 83 03 18 16:30	0.38	1<W	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW
4 83 03 19 00:45	3.82	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 83 03 19 20:20	3.55	1<W	25P54	1<W	4P54	2<W	2<W	2	5<W	6	10	4<W	4<W
7 83 03 20 04:30	2.17	1<W	6	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
9 83 03 20 20:15	1.05	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
10 83 03 21 04:40	0.80	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
13 83 03 23 16:10	0.84	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
14 83 03 25 10:15	0.30	1<W	10	1<W	4	2<W	2<W	2<W	0<W	2<W	4<W	4<W	4<W
18 83 03 26 10:20	0.29	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
20 83 03 27 09:55	0.41	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
23 83 03 27 18:50	2.22	1<W	6	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
27 83 03 28 13:55	2.46	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA
31 83 03 30 12:25	0.63	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
32 83 04 06 13:25	0.60	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
33 83 04 13 12:20	0.73	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
34 83 04 21 14:50	0.52	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
35 83 04 28 13:10	0.35	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			2		4			2		6	10		
Max. detected :			25		4			6		6	10		
No. detected :		0	10	0	2	0	0	2	0	1	1	0	0

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1	83 03 10 14:45	20.76	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
2	83 03 17 13:30	5.09	1<W	3	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
3	83 03 18 22:15	16.48	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
4	83 03 19 05:40	20.57	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6	83 03 19 19:50	64.36	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
7	83 03 20 04:10	40.10	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
9	83 03 20 20:00	25.56	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
10	83 03 21 04:15	18.70	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
13	83 03 23 16:35	7.26	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
14	83 03 25 14:15	5.05	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
18	83 03 26 08:25	4.88	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
20	83 03 27 08:20	6.49	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
23	83 03 27 21:45	8.74	1<W	3	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
27	83 03 29 07:05	21.04	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
31	83 03 30 12:10	11.30	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
32	83 04 06 13:10	12.27	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
33	83 04 13 12:10	11.67	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
34	83 04 21 14:30	5.90	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
35	83 04 28 12:55	4.00	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :				2										
Max. detected :				4										
No. detected :			0	5	0	0	0	0	0	0	0	0	0	0

STATION #7 Humber River @ Lawrence Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 83 03 10 14:20	19.77	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
2 83 03 17 12:10	7.67	1<W	3	1<W	1<W	2<W	2<W	2<W	3<W	2<W	4<W	4<W	4<W
3 83 03 18 21:45	14.61	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
4 83 03 19 05:15	20.16	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 83 03 19 18:50	72.70	1<W	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW
7 83 03 20 03:25	51.47	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
9 83 03 20 18:50	28.66	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5	2<W	4<W	4<W	4<W
10 83 03 21 03:25	20.96	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
13 83 03 23 14:15	9.94	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
14 83 03 25 13:00	7.37	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
19 83 03 26 07:25	7.59	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
20 83 03 27 07:35	9.25	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
24 83 03 27 20:45	11.96	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
26 83 03 29 06:15	25.11	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
30 83 03 30 11:35	12.93	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
31 83 04 06 12:55	13.59	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
32 83 04 13 11:05	13.93	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
33 83 04 21 14:05	8.57	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
34 83 04 28 12:15	6.74	1<W	1	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			1						5				
Max. detected :			4						5				
No. detected :		0	5	0	0	0	0	0	1	0	0	0	0

STATION #8 W Humber R @ Main Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 83 03 10 11:35	7.70	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
2 83 03 17 11:00	1.94	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
3 83 03 18 18:20	2.17	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
4 83 03 19 03:55	5.80	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 83 03 19 17:20	30.00	1<W	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW
7 83 03 20 01:00	21.93	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
9 83 03 20 17:30	10.49	1<W	2	1<W	1	2<W	2<W	4	5<W	2<W	4<W	4<W	8
10 83 03 21 01:10	7.57	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
13 83 03 23 13:00	2.11	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
14 83 03 25 12:00	0.77	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
19 83 03 26 06:15	1.02	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
20 83 03 27 06:30	0.98	1<W	6	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
23 83 03 27 21:05	1.52	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
25 83 03 29 05:25		0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD	0NOD
29 83 03 30 10:15	2.70	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
30 83 04 06 11:10	2.10	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
31 83 04 13 10:15	1.70	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
32 83 04 21 11:05	0.77	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
33 83 04 28 10:45	0.44	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			2		1			4					8
Max. detected :			6		1			4					8
No. detected :		0	6	0	1	0	0	1	0	0	0	0	1

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 83 03 10 12:15	7.95	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
2 83 03 17 11:30	1.85	1<W	4	1<W	1	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
3 83 03 18 18:45	3.52	1<W	1	1<W	1<W	2<W	5	2<W	5<W	2<W	4<W	4<W	4<W
4 83 03 19 04:25	6.96	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 83 03 19 17:45	7.97	1<W	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW
7 83 03 20 01:45	12.04	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
9 83 03 20 18:00	13.68	1<W	1<W	1<W	1<W	2<W	2<W	4	5<W	2<W	4<W	4<W	4<W
10 83 03 21 01:30	8.96	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
13 83 03 23 13:30	3.22	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
14 83 03 25 12:20	3.21	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
19 83 03 26 06:30	3.34	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4
20 83 03 27 07:00	3.98	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
23 83 03 27 21:30	4.54	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
25 83 03 29 06:20		ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD
29 83 03 30 10:40	6.10	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
30 83 04 06 11:30	7.15	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
31 83 04 13 10:35	7.10	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
32 83 04 21 11:25	4.15	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
33 83 04 28 11:00	2.72	1<W	1	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			1		1		5	4					4
Max. detected :			4		1		5	4					4
No. detected :		0	6	0	1	0	1	1	0	0	0	0	1

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 83 03 10 10:15	8.95	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
2 83 03 17 09:45	3.27	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
3 83 03 18 17:30	3.40	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
4 83 03 19 03:00	5.41	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
6 83 03 19 16:00	17.12	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
7 83 03 19 23:45	16.20	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	4<W	4<W	4<W	8P54
9 83 03 20 16:15	12.61	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
10 83 03 20 23:50	10.05	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
13 83 03 23 11:00	4.44	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
14 83 03 25 11:15	3.18	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
19 83 03 26 05:40	3.22	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
20 83 03 27 06:00	3.98	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
23 83 03 27 23:20	4.16	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
29 83 03 30 08:45	5.78	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
30 83 04 06 10:15	6.79	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
31 83 04 13 09:25	6.83	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
32 83 04 21 09:40	3.95	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
33 83 04 28 10:00	3.00	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			4										8
Max. detected :			4										8
No. detected :		0	1	0	0	0	0	0	0	0	0	0	1

STATION #11 Black Creek @ Lawrence Ave

#	Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1	83 03 10 16:00	0.58	1<W	5	1<W	2	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
2	83 03 17 13:05	0.20	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
3	83 03 18 16:00	0.21	1<W	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW
4	83 03 19 00:15	2.08	1<W	4	1<W	1<W	2<W	2P54	2<W	5<W	2<W	4<W	4<W	4<W
6	83 03 19 19:10	2.44	1<W	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW
7	83 03 20 03:05	1.64	1<W	4	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
9	83 03 20 19:30	0.80	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
10	83 03 21 03:45	0.62	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
13	83 03 23 15:40	0.59	1<W	8	1<W	2	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
14	83 03 25 09:50	0.25	1<W	7	1<W	1	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
18	83 03 26 11:00	0.23	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2	4	4<W	4<W
20	83 03 27 10:25	0.31	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
23	83 03 27 18:20	1.08	1<W	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW
25	83 03 28 13:30	1.46	1<W	7P54	1<W	4P54	2<W	2<W	2<W	5P54	2<W	4<W	4<W	4<W
29	83 03 30 11:50	0.45	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
30	83 04 06 12:00	0.45	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
31	83 04 13 11:50	0.44	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
32	83 04 21 13:40	0.30	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
33	83 04 28 12:40	0.17	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :				2		1		2		5	2	4		
Max. detected :				8		4		2		5	2	4		
No. detected :			0	9	0	4	0	1	0	1	1	1	0	0

STATION #12 Cook Creek @ Weston Rd

# Date and Time	FLOW m3/s	10 ALDR ng/L	11 BHCA ng/L	12 BHCB ng/L	13 BHCG ng/L	14 CHLA ng/L	15 CHLG ng/L	16 DIEL ng/L	17 DMDT ng/L	18 END1 ng/L	19 END2 ng/L	20 ENDR ng/L	21 ENDS ng/L
1 83 03 10 11:00	0.10	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
2 83 03 17 10:30	0.07	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
3 83 03 18 17:00	0.10	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
4 83 03 19 01:35	0.88	1<W	5	1<W	1<W	2<W	7	2<W	5<W	2<W	4<W	4<W	4<W
6 83 03 19 16:45	0.43	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
7 83 03 20 00:30	0.20	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
9 83 03 20 16:55	0.10	1<W	2	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
10 83 03 21 00:30	0.08	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
13 83 03 23 17:10	0.19	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
14 83 03 25 10:45	0.09	1<W	8	1<W	4	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
19 83 03 26 12:00	0.07	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
20 83 03 27 10:55	0.18	1<W	0!UI	0!UI	0!UI	0!UI	0!UI	2<W	5<W	2<W	4<W	4<W	4<W
22 83 03 27 16:15	0.79	1<W	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW	0!AW
25 83 03 28 14:05	0.59	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
29 83 03 30 09:20	0.08	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
30 83 04 06 10:45	0.09	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
31 83 04 13 09:55	0.09	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
32 83 04 21 10:35	0.07	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
33 83 04 28 10:20	0.08	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W
Min. detected :			2		4		7						
Max. detected :			8		4		7						
No. detected :		0	4	0	1	0	1	0	0	0	0	0	0

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
SPRING RUNOFF - MARCH 10 TO APRIL 28, 1983

Pesticides and Organic Parameters

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 83 03 10 17:00	3.82	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
2 83 03 17 14:20	2.35	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
3 83 03 18 22:45	7.87	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5P54	50<W	100<W	200<W
4 83 03 19 06:20	8.22	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100	200<W
6 83 03 19 21:00	14.17	0<W	1<W	5<W	2<W	5<W	180P54	5<W	1<W	5<W	50<W	100<W	200<W
7 83 03 20 05:00	10.98	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
9 83 03 20 20:50	4.75	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1	5<W	50<W	100<W	200<W
10 83 03 21 05:00	6.45	1<W	1<W	5<W	2<W	5<W	205P54	5<W	3	5<W	50<W	100<W	200<W
13 83 03 23 17:50	1.62	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
14 83 03 25 14:50	2.00	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
18 83 03 26 09:10	4.35	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
20 83 03 27 08:50	3.30	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
23 83 03 27 22:15	4.34	1<W	1<W	5<W	2<W	5<W	25P54	5<W	1<W	5<W	50<W	100<W	200<W
25 83 03 29 07:30	7.23	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
29 83 03 30 12:50	3.96	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
30 83 04 06 13:45	5.55	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
31 83 04 13 12:50	4.24	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
32 83 04 21 15:20	3.00	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
33 83 04 28 13:30	2.25	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :							25		1	5		100	
Max. detected :							205		3	5		100	
No. detected :		0	0	0	0	0	3	0	2	1	0	1	0

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1	83 03 10 17:30	1.51	1<W	1<W	5<W	3	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
2	83 03 17 15:00	0.30	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
3	83 03 18 23:05	9.31	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
4	83 03 19 06:50	12.51	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
6	83 03 19 21:30	5.15	0<W	1<W	5<W	0<W	5<W	145P54	5<W	1<W	5<W	50<W	100<W	200<W
7	83 03 20 05:30	3.11	1<W	1<W	5<W	2<W	5<W	45P54	5<W	1<W	5<W	50<W	100<W	200<W
9	83 03 20 21:20	1.67	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
10	83 03 21 05:35	1.37	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
13	83 03 23 19:25	1.20	1<W	1<W	5<W	2<W	5<W	70P60	5<W	1	5<W	50<W	100<W	200<W
14	83 03 25 15:30	0.87	1<W	1<W	5<W	2<W	5<W	70P60	5<W	1<W	5<W	50<W	100<W	200<W
18	83 03 26 09:35	0.70	1<W	1<W	5<W	2<W	5<W	25P60	5<W	1<W	5<W	50<W	100<W	200<W
20	83 03 27 09:20	0.88	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
23	83 03 27 22:50	3.14	0!AW	1<W	5<W	0!AW	0!AW	65P54	0!AW	1<W	0!AW	50<W	100<W	200<W
25	83 03 28 22:45	5.23	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	50<W	100<W	200<W
30	83 03 30 13:15	1.01	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
31	83 04 06 14:10	0.91	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
32	83 04 13 13:10	0.64	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
33	83 04 21 16:00	0.47	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
34	83 04 29 13:50		1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :						3		25		1				
max. detected :						3		145		1				
No. detected :			0	0	0	1	0	6	0	1	0	0	0	0

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 83 03 10 15:15	0.78	1<W	1<W	5<W	2<W	5<W	250P54	5<W	1<W	5<W	50<W	100<W	200<W
2 83 03 17 13:50	0.27	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
3 83 03 18 16:30	0.38	0!AW	1<W	5<W	0!AW	0!AW	20<W	0!AW	1<W	0!AW	50<W	100<W	200<W
4 83 03 19 00:45	3.82	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	0!RP	0!RP	0!RP
6 83 03 19 20:20	3.55	0<W	1<W	5<W	4<W	5<W	285P54	5<W	1<W	5<W	50<W	100<W	200<W
7 83 03 20 04:30	2.17	1<W	1<W	5<W	2	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
9 83 03 20 20:15	1.05	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
10 83 03 21 04:40	0.80	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
13 83 03 23 16:10	0.84	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
14 83 03 25 10:15	0.30	1<W	1<W	0<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
19 83 03 26 10:20	0.29	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
20 83 03 27 09:55	0.41	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
23 83 03 27 18:50	2.22	1<W	1<W	5<W	2<W	5<W	25P54	5<W	1<W	5<W	50<W	100<W	200<W
27 83 03 28 13:55	2.46	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA	50<W	100<W	200<W
31 83 03 30 12:25	0.63	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
32 83 04 06 13:25	0.60	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
33 83 04 13 12:20	0.73	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
34 83 04 21 14:50	0.52	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
35 83 04 28 13:10	0.35	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	470	200<W
Min. detected :					2		25					470	
Max. detected :					2		285					470	
No. detected :		0	0	0	1	0	3	0	0	0	0	1	0

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1	83 03 10 14:45	20.76	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
2	83 03 17 13:30	5.09	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
3	83 03 18 22:15	16.48	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
4	83 03 19 05:40	20.57	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
6	83 03 19 19:50	64.36	3P54	1<W	5<W	2P54	5<W	55P54	5<W	1<W	5<W	50<W	100<W	200<W
7	83 03 20 04:10	40.10	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
9	83 03 20 20:00	25.56	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
10	83 03 21 04:15	18.70	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
13	83 03 23 16:35	7.26	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
14	83 03 25 14:15	5.05	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
18	83 03 26 08:25	4.88	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
20	83 03 27 08:20	6.49	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
23	83 03 27 21:45	8.74	1<W	1<W	5<W	2<W	5<W	55P54	5<W	1<W	5<W	50<W	100<W	200<W
27	83 03 29 07:05	21.04	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
31	83 03 30 12:10	11.30	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
32	83 04 06 13:10	12.27	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
33	83 04 13 12:10	11.67	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
34	83 04 21 14:30	5.90	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
35	83 04 28 12:55	4.00	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
	Min. detected :		3			2		55						
	Max. detected :		3			2		55						
	No. detected :		1	0	0	1	0	2	0	0	0	0	0	0

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1	83 03 10 14:20	19.77	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
2	83 03 17 12:10	7.67	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
3	83 03 18 21:45	14.61	1	1<W	5<W	2<W	5<W	255P54	5<W	1<W	5<W	50<W	100<W	200<W
4	83 03 19 05:15	20.16	1<W	1P54	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
6	83 03 19 18:50	72.70	0!AW	1<W	5<W	0!AW	0!AW	25P54	0!AW	1<W	0!AW	50<W	100<W	200<W
7	83 03 20 03:25	51.47	1<W	1<W	5<W	2	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
9	83 03 20 18:50	28.66	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
10	83 03 21 03:25	20.96	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
13	83 03 23 14:15	9.94	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
14	83 03 25 13:00	7.37	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
19	83 03 26 07:25	7.59	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
20	83 03 27 07:35	9.25	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
24	83 03 27 20:45	11.96	1<W	1<W	5<W	2<W	5<W	45P54	5<W	1<W	5<W	50<W	100<W	200<W
26	83 03 29 06:15	25.11	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
30	83 03 30 11:35	12.93	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
31	83 04 06 12:55	13.59	1<W	1<W	5<W	2<W	5<W	40P60	5<W	1<W	5<W	50<W	100<W	200<W
32	83 04 13 11:05	13.93	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
33	83 04 21 14:05	8.57	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
34	83 04 28 12:15	6.74	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :			1	1		2		25						
Max. detected :			1	1		2		255						
No. detected :			1	1	0	1	0	4	0	0	0	0	0	0

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	22 HEPE ng/L	23 MEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1	83 03 10 11:35	7.70	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
2	83 03 17 11:00	1.94	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
3	83 03 18 18:20	2.17	1<W	1<W	5<W	2<W	5<W	25P54	5<W	1<W	5<W	50<W	100<W	200<W
4	83 03 19 03:55	5.80	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1P54	5<W	50<W	590	200<W
6	83 03 19 17:20	30.00	0!AW	1<W	5<W	0!AW	0!AW	20<W	0!AW	1<W	0!AW	50<W	100<W	200<W
7	83 03 20 01:00	21.93	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
9	83 03 20 17:30	10.49	1	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
10	83 03 21 01:10	7.57	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
13	83 03 23 13:00	2.11	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
14	83 03 25 12:00	0.77	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
19	83 03 26 06:15	1.02	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
20	83 03 27 06:30	0.99	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
23	83 03 27 21:05	1.52	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
25	83 03 29 05:25		ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	50<W	100<W	200<W
29	83 03 30 10:15	2.70	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
30	83 04 06 11:10	2.10	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
31	83 04 13 10:15	1.70	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
32	83 04 21 11:05	0.77	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
33	83 04 28 10:45	0.44	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :			1					25		1			580	
Max. detected :			1					25		1			580	
No. detected :			1	0	0	0	0	1	0	1	0	0	1	0

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 83 03 10 12:15	7.95	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
2 83 03 17 11:30	1.85	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
3 83 03 18 18:45	3.52	1<W	1<W	5<W	2<W	5<W	190P54	5<W	1<W	5<W	50<W	100<W	200<W
4 83 03 19 04:25	6.96	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	0!RP	0!RP	0!RP
6 83 03 19 17:45	7.97	0!AW	1<W	5<W	0!AW	0!AW	20<W	0!AW	1<W	0!AW	50<W	100<W	200<W
7 83 03 20 01:45	12.04	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
9 83 03 20 18:00	13.68	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
10 83 03 21 01:30	8.96	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
13 83 03 23 13:30	3.22	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
14 83 03 25 12:20	3.21	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
19 83 03 26 06:30	3.34	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
20 83 03 27 07:00	3.98	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
23 83 03 27 21:30	4.54	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
25 83 03 29 06:20		ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	ONOD	50<W	100<W	200<W
29 83 03 30 10:40	6.10	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
30 83 04 06 11:30	7.15	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
31 83 04 13 10:35	7.10	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
32 83 04 21 11:25	4.13	1<W	1<W	3<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
33 83 04 28 11:00	2.72	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :							190						
Max. detected :							190						
No. detected :		0	0	0	0	0	1	0	0	0	0	0	0

STATION #10 Humber River @ Steeles Ave

#	Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DP ng/L
1	83 03 10 10:15	8.95	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
2	83 03 17 09:45	3.27	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
3	83 03 18 17:30	3.40	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
4	83 03 19 03:00	5.41	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
6	83 03 19 16:00	17.12	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
7	83 03 19 23:45	16.20	0<W	1<W	5<W	2<W	3<W	25PS4	5<W	1<W	5<W	50<W	100<W	200<W
9	83 03 20 16:15	12.61	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
10	83 03 20 23:50	10.05	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
13	83 03 23 11:00	4.44	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
14	83 03 25 11:15	3.18	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
19	83 03 26 05:40	3.22	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
20	83 03 27 06:00	3.98	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
23	83 03 27 23:20	4.16	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
29	83 03 30 08:45	5.78	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
30	83 04 06 10:15	6.79	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
31	83 04 13 09:25	6.83	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	0!SM	0!SM	0!SM
32	83 04 21 09:40	3.95	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
33	83 04 28 10:00	3.00	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :								25						
Max. detected :								25						
No. detected :			0	0	0	0	0	1	0	0	0	0	0	0

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 83 03 10 16:00	0.58	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
2 83 03 17 13:05	0.20	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
3 83 03 18 16:00	0.21	0!AW	1<W	5<W	0!AW	0!AW	20<W	0!AW	1<W	0!AW	50<W	100<W	200<W
4 83 03 19 00:15	2.08	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
6 83 03 19 19:10	2.44	0!AW	1<W	5<W	0!AW	0!AW	20<W	0!AW	1<W	0!AW	50<W	100<W	200<W
7 83 03 20 03:05	1.64	1<W	1<W	5<W	2<W	5<W	20P54	5<W	1<W	5<W	50<W	100<W	200<W
9 83 03 20 19:30	0.80	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
10 83 03 21 03:45	0.62	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
13 83 03 23 15:40	0.59	1<W	1<W	5<W	2<W	5<W	65P54	5<W	1<W	5<W	50<W	100<W	200<W
14 83 03 25 09:50	0.25	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
18 83 03 26 11:00	0.23	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
20 83 03 27 10:25	0.31	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
23 83 03 27 18:20	1.08	0!AW	1<W	5<W	0!AW	0!AW	40P54	0!AW	2P54	0!AW	50<W	100<W	200<W
25 83 03 28 13:30	1.46	1<W	1<W	5<W	2<W	5<W	45P54	5<W	1<W	5<W	50<W	100<W	200<W
29 83 03 30 11:50	0.45	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
30 83 04 06 12:00	0.45	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
31 83 04 13 11:50	0.44	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
32 83 04 21 13:40	0.30	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
33 83 04 28 12:40	0.17	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :							20		2				
Max. detected :							65		2				
No. detected :		0	0	0	0	0	4	0	1	0	0	0	0

STATION #12 Cook Creek @ Weston Rd

# Date and Time	FLOW m3/s	22 HEPE ng/L	23 HEPT ng/L	24 MIRX ng/L	25 OCHL ng/L	26 OPDT ng/L	27 PCBT ng/L	28 PPDD ng/L	29 PPDE ng/L	30 PPDT ng/L	31 245T ng/L	32 24D ng/L	33 24DB ng/L
1 83 03 10 11:00	0.10	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
2 83 03 17 10:30	0.07	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
3 83 03 18 17:00	0.10	1<W	1<W	5<W	2<W	5<W	55P54	5<W	1<W	5<W	50<W	100<W	200<W
4 83 03 19 01:35	0.88	1<W	1<W	5<W	2<W	5<W	0!CS	5<W	1<W	5<W	50<W	100<W	200<W
6 83 03 19 16:45	0.43	1<W	1<W	5<W	2<W	5<W	45P54	5<W	1<W	5<W	50<W	100<W	200<W
7 83 03 20 00:30	0.20	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
9 83 03 20 16:55	0.10	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
10 83 03 21 00:30	0.08	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
13 83 03 23 17:10	0.19	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
14 83 03 25 10:45	0.08	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
19 83 03 26 12:00	0.07	1	1<W	5<W	2<W	5<W	20<W	5<W	2	5<W	50<W	100<W	200<W
20 83 03 27 10:55	0.18	1<W	1<W	5<W	2<W	0!UI	0!UI	0!UI	1<W	0!UI	50<W	100<W	200<W
22 83 03 27 16:15	0.79	0!AW	1<W	5<W	0!AW	0!AW	45P54	0!AW	1<W	0!AW	50<W	100<W	200<W
25 83 03 28 14:05	0.59	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
29 83 03 30 09:20	0.08	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
30 83 04 06 10:45	0.09	1<W	1	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
31 83 04 13 09:55	0.09	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
32 83 04 21 10:35	0.07	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
33 83 04 28 10:20	0.08	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W
Min. detected :		1	1				45		2				
Max. detected :		1	1				55		2				
No. detected :		1	1	0	0	0	3	0	1	0	0	0	0

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA
SPRING RUNOFF - MARCH 10 TO APRIL 28, 1983

Pesticides and Organic Parameters

STATION #3 Humber River @ Bloor St

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 83 03 10 17:00	3.82	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W
2 83 03 17 14:20	2.35	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
3 83 03 18 22:45	7.87	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	290
4 83 03 19 06:20	8.22	100<W	100<W	100<W	50<W	4	100<W	50<W	50<W	50<W	50<W	320
6 83 03 19 21:00	14.17	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	130
7 83 03 20 05:00	10.98	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	60
9 83 03 20 20:50	4.75	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
10 83 03 21 05:00	6.45	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	50<W
13 83 03 23 17:50	1.62	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
14 83 03 25 14:50	2.00	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
18 83 03 26 09:10	4.35	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
20 83 03 27 08:50	3.30	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
23 83 03 27 22:15	4.34	100<W	100<W	100<W	50<W	3	100<W	50<W	50<W	50<W	50<W	170
25 83 03 29 07:30	7.23	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
29 83 03 30 12:50	3.96	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
30 83 04 06 13:45	5.55	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
31 83 04 13 12:50	4.24	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
32 83 04 21 15:20	3.00	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
33 83 04 28 13:30	2.25	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :						1						60
Max. detected :						4						320
No. detected :		0	0	0	0	5	0	0	0	0	0	5

STATION #4 Mimico Creek @ mouth

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	83 03 10 17:30	1.51	100<W	100<W	100<W	50<W	3	100<W	50<W	50<W	50<W	50<W	930
2	83 03 17 15:00	0.30	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	90
3	83 03 18 23:05	9.31	100<W	260	100<W	50<W	29	100<W	50<W	50<W	50<W	50<W	440
4	83 03 19 06:50	12.51	100<W	100<W	100<W	50<W	1<W	100<W	50<W	70	50<W	50<W	830
6	83 03 19 21:30	5.15	100<W	100<W	100<W	50<W	7	100<W	50<W	130	50<W	50<W	1400
7	83 03 20 05:30	3.11	100<W	100<W	100<W	50<W	4	100<W	50<W	180	50<W	50<W	2200
9	83 03 20 21:20	1.67	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	1700
10	83 03 21 05:35	1.37	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	1500
13	83 03 23 18:25	1.20	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	210
14	83 03 25 15:30	0.87	100<W	100<W	100<W	50<W	3P60	100<W	50<W	50<W	50<W	50<W	140
18	83 03 26 09:35	0.70	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	210
20	83 03 27 09:20	0.88	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	120
23	83 03 27 22:50	3.14	100<W	100<W	100<W	50<W	3	100<W	50<W	50<W	50<W	50<W	430
25	83 03 28 22:45	5.23	100<W	100<W	100<W	50<W	0NOD	0!SM	0!SM	0!SM	0!SM	50<W	0!SM
30	83 03 30 13:15	1.01	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	410
31	83 04 06 14:10	0.91	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	700
32	83 04 13 13:10	0.64	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	360
33	83 04 21 16:00	0.47	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	300
34	83 04 28 13:50		100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	160
Min. detected :				260			2			70			90
Max. detected :				260			29			180			2200
No. detected :			0	1	0	0	11	0	0	3	0	0	18

STATION #5 Black Creek @ Scarlett Rd

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	83 03 10 15:15	0.78	100<W	100<W	100<W	50<W	2P54	100<W	50<W	50<W	50<W	50<W	50<W
2	83 03 17 13:50	0.27	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
3	83 03 18 16:30	0.38	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
4	83 03 19 00:45	3.82	0!RP	0!RP	0!RP	0!RP	1<W	100<W	50<W	50<W	50<W	50<W	620
6	83 03 19 20:20	3.55	100<W	100<W	100<W	50<W	8	100<W	50<W	70	50<W	50<W	880
7	83 03 20 04:30	2.17	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	710
9	83 03 20 20:15	1.05	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	340
10	83 03 21 04:40	0.80	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	330
13	83 03 23 16:10	0.84	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	190
14	83 03 25 10:15	0.30	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	140
18	83 03 26 10:20	0.29	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	130
20	83 03 27 09:55	0.41	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	100
23	83 03 27 18:50	2.22	400	160	100<W	110	1<W	100<W	50<W	50<W	50<W	50<W	540
27	83 03 28 13:55	2.46	100<W	100<W	100<W	50<W	0!LA	100<W	50<W	50<W	50<W	50<W	50<W
31	83 03 30 12:25	0.63	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	130
32	83 04 06 13:25	0.60	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	120
33	83 04 13 12:20	0.73	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	80
34	83 04 21 14:50	0.52	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50
35	83 04 28 13:10	0.35	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	130
Min. detected :			400	160		110	1			70			50
Max. detected :			400	160		110	8			70			880
No. detected :			1	1	0	1	7	0	0	1	0	0	15

STATION #6 Humber River @ Scarlett Rd

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	83 03 10 14:45	20.76	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
2	83 03 17 13:30	5.09	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
3	83 03 18 22:15	16.48	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	190
4	83 03 19 05:40	20.57	100<W	100<W	100<W	50<W	1P54	100<W	50<W	50<W	50<W	50<W	200
6	83 03 19 19:50	64.36	100<W	100<W	100<W	50<W	1P54	100<W	50<W	50<W	50<W	50<W	50
7	83 03 20 04:10	40.10	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50
9	83 03 20 20:00	25.56	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
10	83 03 21 04:15	18.70	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
13	83 03 23 16:35	7.26	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
14	83 03 25 14:15	5.05	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
19	83 03 26 08:25	4.88	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
20	83 03 27 08:20	6.49	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
23	83 03 27 21:45	8.74	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	140
27	83 03 29 07:05	21.04	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	100<W
31	83 03 30 12:10	11.30	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
32	83 04 06 13:10	12.27	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
33	83 04 13 12:10	11.67	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
34	83 04 21 14:30	5.90	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
35	83 04 28 12:55	4.00	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :							1						50
Max. detected :							1						200
No. detected :			0	0	0	0	3	0	0	0	0	0	5

STATION #7 Humber River @ Lawrence Ave

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	83 03 10 14:20	19.77	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
2	83 03 17 12:10	7.67	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
3	83 03 18 21:45	14.61	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	70
4	83 03 19 05:15	20.16	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	180
6	83 03 19 18:50	72.70	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W
7	83 03 20 03:25	51.47	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
9	83 03 20 18:50	28.66	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
10	83 03 21 03:25	20.96	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
13	83 03 23 14:15	9.94	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
14	83 03 25 13:00	7.37	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
19	83 03 26 07:25	7.59	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
20	83 03 27 07:35	9.25	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
24	83 03 27 20:45	11.96	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	100
26	83 03 29 06:15	25.11	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
30	83 03 30 11:35	12.93	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
31	83 04 06 12:55	13.59	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
32	83 04 13 11:05	13.93	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
33	83 04 21 14:05	8.57	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
34	83 04 28 12:15	6.74	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :							1						70
Max. detected :							1						180
No. detected :			0	0	0	0	2	0	0	0	0	0	3

STATION #8 W Humber R @ Main Humber R

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	83 03 10 11:35	7.70	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
2	83 03 17 11:00	1.94	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
3	83 03 18 18:20	2.17	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
4	83 03 19 03:55	5.80	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	170
6	83 03 19 17:20	30.00	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W
7	83 03 20 01:00	21.93	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
9	83 03 20 17:30	10.49	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
10	83 03 21 01:10	7.57	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
13	83 03 23 13:00	2.11	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
14	83 03 25 12:00	0.77	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
19	83 03 26 06:15	1.02	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
20	83 03 27 06:30	0.98	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
23	83 03 27 21:05	1.52	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
25	83 03 29 05:25		100<W	100<W	100<W	50<W	0NOD	100<W	50<W	50<W	50<W	50<W	50<W
29	83 03 30 10:15	2.70	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
30	83 04 06 11:10	2.10	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
31	83 04 13 10:15	1.70	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
32	83 04 21 11:05	0.77	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
33	83 04 28 10:45	0.44	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :							1						170
Max. detected :							1						170
No. detected :			0	0	0	0	1	0	0	0	0	0	1

STATION #9 Main Humber R @ W Humber R

# Date and Time	FLOW m^3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPNM ng/L
1 83 03 10 12:15	7.95	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
2 83 03 17 11:30	1.85	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
3 83 03 18 18:45	3.52	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	60
4 83 03 19 04:25	6.96	0!RP	0!RP	0!RP	0!RP	1<W	100<W	50<W	50<W	50<W	50<W	260
6 83 03 19 17:45	7.97	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
7 83 03 20 01:45	12.04	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
9 83 03 20 18:00	13.68	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
10 83 03 21 01:30	8.96	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
13 83 03 23 13:30	3.22	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
14 83 03 25 12:20	3.21	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
19 83 03 26 06:30	3.34	100<W	100<W	100<W	50<W	1<W	0!SM	0!SM	0!SM	0!SM	0!SM	0!SM
20 83 03 27 07:00	3.98	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
23 83 03 27 21:30	4.54	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50
25 83 03 29 06:20		100<W	100<W	100<W	50<W	ONCD	100<W	50<W	50<W	50<W	50<W	50<W
29 83 03 30 10:40	6.10	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
30 83 04 06 11:30	7.15	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
31 83 04 13 10:35	7.10	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
32 83 04 21 11:25	4.15	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
33 83 04 28 11:00	2.72	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												50
Max. detected :												260
No. detected :		0	0	0	0	0	0	0	0	0	0	3

STATION #10 Humber River @ Steeles Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 83 03 10 10:15	8.95	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
2 83 03 17 09:45	3.27	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
3 83 03 18 17:30	3.40	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
4 83 03 19 03:00	5.41	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
6 83 03 19 16:00	17.12	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
7 83 03 19 23:45	16.20	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
9 83 03 20 16:15	12.61	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
10 83 03 20 23:50	10.05	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
13 83 03 23 11:00	4.44	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
14 83 03 25 11:15	3.18	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
19 83 03 26 05:40	3.22	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
20 83 03 27 06:00	3.98	100<W	100<W	100<W	50<W	1<W	0!LA	0!LA	0!LA	0!LA	0!LA	0!LA
23 83 03 27 23:20	4.16	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
29 83 03 30 08:45	5.78	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
30 83 04 06 10:15	6.79	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
31 83 04 13 09:25	6.83	0!SM	0!SM	0!SM	0!SM	1<W	0!SM	0!SM	0!SM	0!SM	0!SM	0!SM
32 83 04 21 09:40	3.95	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
33 83 04 28 10:00	3.00	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
Min. detected :												
Max. detected :												
No. detected :		0	0	0	0	0	0	0	0	0	0	0

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1 83 03 10 16:00	0.58	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W
2 83 03 17 13:05	0.20	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
3 83 03 18 16:00	0.21	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	90
4 83 03 19 00:15	2.08	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	780
6 83 03 19 19:10	2.44	100<W	100<W	100<W	50<W	3	100<W	50<W	50<W	50<W	50<W	640
7 83 03 20 03:05	1.64	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	760
9 83 03 20 19:30	0.80	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
10 83 03 21 03:45	0.62	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	220
13 83 03 23 15:40	0.59	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	880
14 83 03 25 09:50	0.23	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
18 83 03 26 11:00	0.23	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<W
20 83 03 27 10:25	0.31	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	90
23 83 03 27 18:20	1.08	320	160	100<W	100	2	100<W	50<W	50<W	50<W	50<W	710
25 83 03 28 13:30	1.46	100<W	100<W	100<W	50<W	3P5A	100<W	50<W	50<W	50<W	50<W	800
29 83 03 30 11:50	0.45	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
30 83 04 06 12:00	0.45	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	160
31 83 04 13 11:50	0.44	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	80
32 83 04 21 13:40	0.30	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	65
33 83 04 28 12:40	0.17	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	60
Min. detected :		320	160		100	1						60
Max. detected :		320	160		100	3						880
No. detected :		1	1	0	1	9	0	0	0	0	0	13

STATION #12 Cook Creek @ Weston Rd

#	Date and Time	FLOW m3/s	34 24DP ng/L	35 DICA ng/L	36 PICL ng/L	37 SILV ng/L	38 HCB ng/L	39 234 ng/L	40 2345 ng/L	41 2356 ng/L	42 245 ng/L	43 246 ng/L	44 PCPH ng/L
1	83 03 10 11:00	0.10	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	170
2	83 03 17 10:30	0.07	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
3	83 03 18 17:00	0.10	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50	50<W	190
4	83 03 19 01:35	0.88	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50	50<W	50<W	590
6	83 03 19 16:45	0.43	100<W	100<W	100<W	50<W	5	100<W	50<W	50<W	50<W	50<W	50<W
7	83 03 20 00:30	0.20	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	550
9	83 03 20 16:55	0.10	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	280
10	83 03 21 00:30	0.08	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
13	83 03 23 17:10	0.19	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	190
14	83 03 25 10:45	0.08	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W
19	83 03 26 12:00	0.07	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	90
20	83 03 27 10:55	0.18	100<W	100<W	100<W	50<W	6	100<W	50<W	50<W	50<W	50<W	230
22	83 03 27 16:15	0.79	360	100<W	100<W	90	4	100<W	50<W	50<W	50<W	50<W	420
25	83 03 28 14:05	0.59	100<W	100<W	100<W	50<W	2<W	100<W	50<W	50<W	50<W	50<W	600
29	83 03 30 09:20	0.08	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	120
30	83 04 06 10:45	0.09	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	100
31	83 04 13 09:55	0.09	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	360
32	83 04 21 10:35	0.07	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	260
33	83 04 28 10:20	0.08	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	600
Min. detected :			360			90	1			50	50		90
Max. detected :			360			90	6			50	50		600
No. detected :			1	0	0	1	5	0	0	1	1	0	15

ANNEX 2

SEDIMENT DATA

ANNEX 2

SEDIMENT DATA

NOTES

1 - Remark codes following analytical results are defined in the notes for Annex 1.

2 - The meanings of the numbers and abbreviations for pesticides and organic parameters are given in the notes for Annex 1.

3 - RSTLOI stands for residual, total, loss on ignition.

4 - A blank means that the parameter was not measured.

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

FALL SEDIMENT SAMPLING - OCTOBER 14-15, 1982

Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don River

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 14 19:10	0.6	0.30	9.70	16.00	0.04	4.70	41.00	69.00

STATION #3 Humber River @ Bloor St

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 14 16:35	1.7	0.55	55.00	19.00	0.05	21.00	76.00	77.00

STATION #6 Humber River @ Scarlett Rd

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 14 14:15	1.3	0.25	10.00	12.00	0.01	5.00	33.00	40.00

STATION #7 Humber River @ Lawrence Ave

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 14 13:00	1.7	0.40	17.00	20.00	0.02	7.20	75.00	100.00

STATION #8 West Humber @ Main Humber

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 14 10:25	1.1	0.20<	9.30	12.00	0.01	6.60	8.00	38.00

STATION #9 Main Humber @ West Humber

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 14 10:45	1.0	0.20<	12.00	9.70	0.01	5.20	13.00	33.00

STATION #10 Humber River @ Steeles Ave

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 14 09:30	1.2	0.20<	7.60	10.00	0.01	4.30	5.00	25.00

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 14 13:45	0.9	0.25	14.00	13.00	0.03	6.30	92.00	77.00

STATION #12 Mimico Creek @ Hwy 427

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 14 08:30	0.9	0.32	21.00	16.00	0.02	8.60	52.00	51.00

STATION #17 W Don River below Overlea

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 15 09:10	0.4	0.20<	5.70	24.00	0.01	2.50<	16.00	28.00

STATION #20 Don River @ Taylor Creek

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
82 10 15 10:00	0.6	0.20<	9.60	7.70	0.01	3.50	14.00	30.00

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

FALL SEDIMENT SAMPLING - OCTOBER 14-15, 1982

Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don River

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
82 10 14 19:10	0.6	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #2 Don River @ mouth

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
82 10 14 18:15	0.6	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #3 Humber River @ Bloor St

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
82 10 14 16:35	1.7	1<W	1<W	1<W	1<W	2<W	2<W	2P54	5<W	2<W	4<W	4<W	4<W

STATION #4 Mimico Creek @ mouth

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
82 10 14 17:20	1.1	1<W	1<W	1<W	1<W	2<W	2<W	4	5<W	4<W	4<W	4<W	4<W

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
82 10 14 15:20	0.9	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	6<W	4<W	4<W

STATION #6 Humber River @ Scarlett Rd

# Date and Time	RSTLOI %	10 ALDR ng/s	11 BHCA ng/s	12 BHCB ng/s	13 BHCG ng/s	14 CHLA ng/s	15 CHLG ng/s	16 DIEL ng/s	17 DMDT ng/s	18 END1 ng/s	19 END2 ng/s	20 ENDR ng/s	21 ENDS ng/s
82 10 14 14:15	1.3	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #7 Humber River @ Lawrence Ave

# Date and Time	RSTLOI %	10 ALDR ng/s	11 BHCA ng/s	12 BHCB ng/s	13 BHCG ng/s	14 CHLA ng/s	15 CHLG ng/s	16 DIEL ng/s	17 DMDT ng/s	18 END1 ng/s	19 END2 ng/s	20 ENDR ng/s	21 ENDS ng/s
82 10 14 13:00	1.7	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	5<W	4<W	4<W

STATION #8 West Humber @ Main Humber

# Date and Time	RSTLOI %	10 ALDR ng/s	11 BHCA ng/s	12 BHCB ng/s	13 BHCG ng/s	14 CHLA ng/s	15 CHLG ng/s	16 DIEL ng/s	17 DMDT ng/s	18 END1 ng/s	19 END2 ng/s	20 ENDR ng/s	21 ENDS ng/s
82 10 14 10:25	1.1	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #9 Main Humber @ West Humber

# Date and Time	RSTLOI %	10 ALDR ng/s	11 BHCA ng/s	12 BHCB ng/s	13 BHCG ng/s	14 CHLA ng/s	15 CHLG ng/s	16 DIEL ng/s	17 DMDT ng/s	18 END1 ng/s	19 END2 ng/s	20 ENDR ng/s	21 ENDS ng/s
82 10 14 10:45	1.0	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	8	4<W	4<W

STATION #10 Humber River @ Steeles Ave

# Date and Time	RSTLOI %	10 ALDR ng/s	11 BHCA ng/s	12 BHCB ng/s	13 BHCG ng/s	14 CHLA ng/s	15 CHLG ng/s	16 DIEL ng/s	17 DMDT ng/s	18 END1 ng/s	19 END2 ng/s	20 ENDR ng/s	21 ENDS ng/s
82 10 14 09:30	1.2	1<W	1<W	1<W	1<W	2<W	2<W	2	5<W	2<W	4<W	4<W	4<W

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	RSTLOI %	10 ALDR ng/s	11 BHCA ng/s	12 BHCB ng/s	13 BHCG ng/s	14 CHLA ng/s	15 CHLG ng/s	16 DIEL ng/s	17 DMDT ng/s	18 END1 ng/s	19 END2 ng/s	20 ENDR ng/s	21 ENDS ng/s
82 10 14 13:45	0.9	1<W	1P54	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #12 Mimico Creek @ Hwy 427

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 14 08:30	0.9	1<W	1<W	1<W	1<W	2<W	2<W	2	5<W	2<W	4<W	4<W	4<W

STATION #13 Mimico Creek @ Rathburn Rd

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 14 16:10		1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2	4<W	4<W	4<W

STATION #14 Humber River @ Lakeshore

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 15 07:30	2.0	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #15 W Don River above Finch Res

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 15 13:35		1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #16 W Don River @ York Mills Rd

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 15 15:15		1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #17 W Don River below Overlea

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 15 09:10	0.4	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #18 Don River @ Potters Rd

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s
82 10 14 18:40		1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #20 Don River @ Taylor Creek

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s
82 10 15 10:00	0.6	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #21 Don River @ York Mills Rd

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s
82 10 15 11:55		1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #22 Don River @ Cummer Ave

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s
82 10 15 12:45		!SM	!SM	!SM	!SM	!SM	!SM	!SM	!SM	!SM	!SM	!SM	!SM

STATION #23 Taylor Creek @ Warden Ave

		10	11	12	13	14	15	16	17	18	19	20	21
	RSTLOI	ALDR	BHCA	BHCB	BHCG	CHLA	CHLG	DIEL	DMDT	END1	END2	ENDR	ENDS
# Date and Time	%	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s	ng/s
82 10 15 11:00		1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

FALL SEDIMENT SAMPLING - OCTOBER 14-15, 1982

Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don River

		22	23	24	25	26	27	28	29	30	31	32	33
	RSTLOI	HEPE	HEPT	MIRX	OCHL	OPDT	PCBT	PPDD	PPDE	PPDT	245T	24D	24DB
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 14 19:10	0.6	1<W	1<W	5<W	2<W	5<W	25P54	5<W	3	5<W		100<W	

STATION #2 Don River @ mouth

		22	23	24	25	26	27	28	29	30	31	32	33
	RSTLOI	HEPE	HEPT	MIRX	OCHL	OPDT	PCBT	PPDD	PPDE	PPDT	245T	24D	24DB
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 14 18:15	0.6	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #3 Humber River @ Bloor St

		22	23	24	25	26	27	28	29	30	31	32	33
	RSTLOI	HEPE	HEPT	MIRX	OCHL	OPDT	PCBT	PPDD	PPDE	PPDT	245T	24D	24DB
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 14 16:35	1.7	1<W	1<W	5<W	2<W	5<W	55P54	5<W	1<W	5<W		100<W	

STATION #4 Mimico Creek @ mouth

		22	23	24	25	26	27	28	29	30	31	32	33
	RSTLOI	HEPE	HEPT	MIRX	OCHL	OPDT	PCBT	PPDD	PPDE	PPDT	245T	24D	24DB
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 14 17:20	1.1	1<W	1<W	5<W	2<W	5<W	45P54	5<W	1<W	5<W		100<W	

STATION #5 Black Creek @ Scarlett Rd

		22	23	24	25	26	27	28	29	30	31	32	33
	RSTLOI	HEPE	HEPT	MIRX	OCHL	OPDT	PCBT	PPDD	PPDE	PPDT	245T	24D	24DB
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
82 10 14 15:20	0.9	1<W	1<W	500<W	2<W	5<W	30P54	5<W	1<W	5<W		100<W	

STATION #6 Humber River @ Scarlett Rd

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 14 14:15	1.3	1<W	1<W	500<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #7 Humber River @ Lawrence Ave

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 14 13:00	1.7	1<W	1<W	500<W	2<W	5<W	50P54	5<W	1<W	5<W		100<W	

STATION #8 West Humber @ Main Humber

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 14 10:25	1.1	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #9 Main Humber @ West Humber

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 14 10:45	1.0	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #10 Humber River @ Steeles Ave

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 14 09:30	1.2	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 14 13:45	0.9	1<W	1<W	5<W	2<W	5<W	20P54	5<W	1<W	5<W		100<W	

STATION #12 Mimico Creek @ Hwy 427

# Date and Time	RSTLOI %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
82 10 14 08:30	0.9	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #13 Mimico Creek @ Rathburn Rd

# Date and Time	RSTLOI %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
82 10 14 16:10		1<W	1<W	0<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #14 Humber River @ Lakeshore

# Date and Time	RSTLOI %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
82 10 15 07:30	2.0	1<W	1<W	0<W	2<W	5<W	250P60	5<W	1<W	5<W		100<W	

STATION #15 W Don River above Finch Res

# Date and Time	RSTLOI %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
82 10 15 13:35		1<W	1<W	0<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #16 W Don River @ York Mills Rd

# Date and Time	RSTLOI %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
82 10 15 15:15		1<W	1<W	0<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #17 W Don River below Overlea

# Date and Time	RSTLOI %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
82 10 15 09:10	0.4	1<W	1<W	0<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #19 Don River @ Pottery Rd

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 14 18:40		1<W	1<W	0<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #20 Don River @ Taylor Creek

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 15 10:00	0.6	1<W	1<W	0<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #21 Don River @ York Mills Rd

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 15 11:55		1<W	1<W	0<W	2<W	5<W	20<W	5<W	1<W	5<W		100<W	

STATION #22 Don River @ Cummer Ave

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 15 12:45		!SM	!SM	!SM	!SM	!SM	!SM	!SM	!SM	!SM		100<W	

STATION #23 Taylor Creek @ Warden Ave

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DB ng/s
82 10 15 11:00		1<W	1<W	0<W	2<W	5<W	30P54	5<W	1<W	5<W		100<W	

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

FALL SEDIMENT SAMPLING - OCTOBER 14-15, 1982

Pesticides and Organic Parameters

STATION #1 Taylor Creek @ Don River

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
82 10 14 19:10	0.6	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #2 Don River @ mouth

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
82 10 14 18:15	0.6	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #3 Humber River @ Bloor St

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
82 10 14 16:35	1.7	100<W	100<W	100<W	50<W	2<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #4 Mimico Creek @ mouth

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
82 10 14 17:20	1.1	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
82 10 14 15:20	0.9	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #6 Humber River @ Scarlett Rd

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 14 14:15	1.3	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #7 Humber River @ Lawrence Ave

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 14 13:00	1.7	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #8 West Humber @ Main Humber

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 14 10:25	1.1	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #9 Main Humber @ West Humber

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 14 10:45	1.0	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #10 Humber River @ Steeles Ave

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 14 09:30	1.2	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 14 13:45	0.9	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #12 Mimico Creek @ Hwy 427

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 14 08:30	0.9	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #13 Mimico Creek @ Rathburn Rd

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 14 16:10		100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #14 Humber River @ Lakeshore

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 15 07:30	2.0	100<W	100<W	100<W	70	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #15 W Don River above Finch Res

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 15 13:35		100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #16 W Don River @ York Mills Rd

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 15 15:15		100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #17 W Don River below Overlea

# Date and Time	RSTLOI %	34 24DP ng/s	35 DICA ng/s	36 PICL ng/s	37 SILV ng/s	38 HCB ng/s	39 234 ng/s	40 2345 ng/s	41 2356 ng/s	42 245 ng/s	43 246 ng/s	44 PCPH ng/s	56 OCT ng/s
82 10 15 09:10	0.4	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #18 Don River @ Pottery Rd

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
82 10 14 18:40		100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #20 Don River @ Taylor Creek

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
82 10 15 10:00	0.6	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #21 Don River @ York Mills Rd

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
82 10 15 11:55		100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #22 Don River @ Cummer Ave

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
82 10 15 12:45		100<W	100<W	100<W	50<W	!SM	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #23 Taylor Creek @ Warden Ave

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
82 10 15 11:00		100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

SPRING SEDIMENT SAMPLING - APRIL 21, 1983

Inorganic Parameters (Metals)

STATION #3 Humber River @ Bloor St

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
83 04 21 15:20	2.0	0.40	21.00	30.00		10.00	53.00	93.00

STATION #4 Mimico Creek @ mouth

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
83 04 21 16:00	0.8	0.30<	22.00	16.00		8.50	44.00	84.00

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
83 04 21 14:50	0.8	0.30<	14.00	12.00		6.50	45.00	60.00

STATION #6 Humber River @ Scarlett Rd

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
83 04 21 14:30	0.7	0.30<	14.00	9.00		5.00	18.00	35.00

STATION #7 Humber River @ Lawrence Ave

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
83 04 21 14:05	1.7	0.30<	18.00	16.00		8.50	19.00	52.00

STATION #8 West Humber @ Main Humber

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
83 04 21 11:05	0.9	0.30<	15.00	10.00		6.00	12.00	32.00

STATION #9 Main Humber @ West Humber

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
83 04 21 11:25	1.2	0.30<	16.00	13.00		6.50	13.00	32.00

STATION #10 Humber River @ Steeles Ave

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
83 04 21 09:40	1.0	0.30<	13.00	12.00		5.00	5.80	33.00

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
83 04 21 13:40	0.8	0.30<	14.00	9.00		5.00	82.00	78.00

STATION #14 Humber River @ Lakeshore

# Date and Time	RSTLOI %	Cadmium ug/g Cd	Chromium ug/g Cr	Copper ug/g Cu	Mercury ug/g Hg	Nickel ug/g Ni	Lead ug/g Pb	Zinc ug/g Zn
83 04 21 16:30	1.3	0.40	12.00	16.00		7.20	46.00	96.00

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

SPRING SEDIMENT SAMPLING - APRIL 21, 1983

Pesticides and Organic Parameters

STATION #3 Humber River @ Bloor St

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
83 04 21 15:20	2.0	1<W	1<W	1<W	1<W	4	2	2<W	5<W	2<W	4<W	4<W	4<W

STATION #4 Mimico Creek @ mouth

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
83 04 21 16:00	0.8	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
83 04 21 14:50	0.8	1<W	1<W	1<W	1<W	2<W	2<W	2<W	5<W	2<W	4<W	4<W	4<W

STATION #6 Humber River @ Scarlett Rd

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
83 04 21 14:30	0.7	1<W	1	1<W	1<W	2<W	2	2<W	4<W	2<W	4<W	4<W	4<W

STATION #7 Humber River @ Lawrence Ave

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
83 04 21 14:05	1.7	1<W	1<W	1<W	1<W	2<W	2<W	2<W	4<W	2<W	4<W	4<W	4<W

STATION #8 West Humber @ Main Humber

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
83 04 21 11:05	0.9	1<W	1<W	1<W	1<W	2<W	2<W	2<W	4<W	2<W	4<W	4<W	4<W

STATION #9 Main Humber @ West Humber

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
83 04 21 11:25	1.2	1<W	1	1<W	1<W	2<W	2<W	2<W	4<W	2<W	4<W	4<W	4<W

STATION #10 Humber River @ Steeles Ave

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
83 04 21 09:40	1.0	1<W	6	1<W	1<W	2<W	2<W	2<W	4<W	2<W	4<W	8	4<W

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
83 04 21 13:40	0.8	1<W	1<W	1<W	1<W	2<W	2<W	2<W	4<W	2<W	4<W	4<W	4<W

STATION #14 Humber River @ Lakeshore

# Date and Time	RSTLOI %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
83 04 21 16:30	1.3	1<W	1<W	1<W	1<W	2<W	2	2<W	4<W	2<W	4<W	?	4<W

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

SPRING SEDIMENT SAMPLING - APRIL 21, 1983

Pesticides and Organic Parameters

STATION #3 Humber River @ Bloor St

# Date and Time	RSTLOI	22 HEPE	23 HEPT	24 MIRX	25 OCHL	26 OPDT	27 PCBT	28 PPDD	29 PPDE	30 PPDT	31 245T	32 24D	33 24DB
	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
83 04 21 15:20	2.0	1<W	1<W	5<W	2<W	5<W	210	5<W	1<W	5<W	50<W	100<W	200<W

STATION #4 Mimico Creek @ mouth

# Date and Time	RSTLOI	22 HEPE	23 HEPT	24 MIRX	25 OCHL	26 OPDT	27 PCBT	28 PPDD	29 PPDE	30 PPDT	31 245T	32 24D	33 24DB
	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
83 04 21 16:00	0.8	1<W	1<W	5<W	2<W	5<W	25	5<W	1<W	5<W	50<W	100<W	200<W

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	RSTLOI	22 HEPE	23 HEPT	24 MIRX	25 OCHL	26 OPDT	27 PCBT	28 PPDD	29 PPDE	30 PPDT	31 245T	32 24D	33 24DB
	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
83 04 21 14:50	0.8	1<W	1<W	5<W	2<W	5<W	120P48	5<W	1<W	5<W	50<W	100<W	200<W

STATION #6 Humber River @ Scarlett Rd

# Date and Time	RSTLOI	22 HEPE	23 HEPT	24 MIRX	25 OCHL	26 OPDT	27 PCBT	28 PPDD	29 PPDE	30 PPDT	31 245T	32 24D	33 24DB
	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
83 04 21 14:30	0.7	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #7 Humber River @ Lawrence Ave

# Date and Time	RSTLOI	22 HEPE	23 HEPT	24 MIRX	25 OCHL	26 OPDT	27 PCBT	28 PPDD	29 PPDE	30 PPDT	31 245T	32 24D	33 24DB
	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
83 04 21 14:05	1.7	1<W	1<W	5<W	2<W	5<W	25P54	5<W	1<W	5<W	50<W	100<W	200<W

STATION #8 West Humber @ Main Humber

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DP ng/s
83 04 21 11:05	0.9	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #9 Main Humber @ West Humber

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DP ng/s
83 04 21 11:25	1.2	1<W	1<W	5<W	2<W	5<W	75P54	5<W	1<W	5<W	50<W	100<W	200<W

STATION #10 Humber River @ Steeles Ave

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DP ng/s
83 04 21 09:40	1.0	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DP ng/s
83 04 21 13:40	0.8	1<W	1<W	5<W	2<W	5<W	20<W	5<W	1<W	5<W	50<W	100<W	200<W

STATION #14 Humber River @ Lakeshore

# Date and Time	RSTLOI %	22 HEPE ng/s	23 HEPT ng/s	24 MIRX ng/s	25 OCHL ng/s	26 OPDT ng/s	27 PCBT ng/s	28 PPDD ng/s	29 PPDE ng/s	30 PPDT ng/s	31 245T ng/s	32 24D ng/s	33 24DP ng/s
83 04 21 16:30	1.3	1<W	1<W	5<W	2<W	5<W	40P54	5<W	1<W	5<W	50<W	100<W	200<W

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

SPRING SEDIMENT SAMPLING - APRIL 21, 1983

Pesticides and Organic Parameters

STATION #3 Humber River @ Bloor St

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
83 04 21 15:20	2.0	100<W	100<W	100<W	50<W	2	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #4 Mimico Creek @ mouth

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
83 04 21 16:00	0.8	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #5 Black Creek @ Scarlett Rd

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
83 04 21 14:50	0.8	100<W	100<W	100<W	50<W	1	100<W	50<W	50<W	50<W	50<W	50<	

STATION #6 Humber River @ Scarlett Rd

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
83 04 21 14:30	0.7	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #7 Humber River @ Lawrence Ave

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
83 04 21 14:05	1.7	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #8 West Humber @ Main Humber

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
83 04 21 11:05	0.9	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #9 Main Humber @ West Humber

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
83 04 21 11:25	1.2	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #10 Humber River @ Steeles Ave

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
83 04 21 09:40	1.0	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #11 Black Creek @ Lawrence Ave

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
83 04 21 13:40	0.8	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

STATION #14 Humber River @ Lakeshore

# Date and Time	RSTLOI %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
83 04 21 16:30	1.3	100<W	100<W	100<W	50<W	1<W	100<W	50<W	50<W	50<W	50<W	50<W	

ANNEX 3

CLAM BIOACCUMULATION STUDY

ANNEX 3

CLAM BIOACCUMULATION STUDY

NOTES

1 - Approximately 10 clams were used at each bioaccumulation study site. The clams from each site were shucked and their meat was combined and ground up in a blender. Three subsamples were taken for analysis from the combined, homogenized clam meat from each site. Thus the three values reported for each site in Annex 3 represent measurements on triplicate samples.

2 - All clam cages were in the water for roughly 3 weeks, from about October 14, 1982, to about November 8, 1982.

3 - A value of N/D means that the parameter was not detected.

4 - A blank means that the analysis was not done.

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

CLAM BIOACCUMULATION STUDY - FALL, 1982

Pesticides and Organic Parameters

STATION #2 Taylor Creek @ Don River

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.5	N/D	N/D	N/D	5	N/D	N/D						
	3.7	N/D	N/D	N/D	7	N/D	2						
	1.8	N/D	N/D	N/D	4	N/D	2						

STATION #3 Don River @ Cummer Ave

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.4	N/D	N/D	N/D	N/D	N/D	N/D						
	2.2	N/D	N/D	N/D	N/D	N/D	N/D						
	1.9	N/D	N/D	N/D	N/D	N/D	2						

STATION #4 Don R @ John St, Thornhill

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.2	N/D	N/D	N/D	N/D	N/D	2						
	2.3	N/D	N/D	N/D	N/D	N/D	N/D						
	2.6	N/D	N/D	N/D	N/D	N/D	3						

STATION #5 Don R @ York Mills Rd

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.8	N/D	N/D	N/D	N/D	N/D	N/D						
	2.2	1	N/D	N/D	N/D	N/D	2						
	1.9	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #6 Don R @ Lawrence Ave

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	3.2	N/D	N/D	N/D	N/D	N/D	3						
	5.3	N/D	N/D	N/D	N/D	N/D	2						
	2.4	N/D	N/D	N/D	N/D	N/D	3						

STATION #7 Don R above Taylor Creek

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.1	N/D	N/D	N/D	N/D	N/D	2						
	3.2	N/D	N/D	N/D	N/D	N/D	4						
	3.5	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #8 W Don R @ Finch Res

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.0	N/D	N/D	N/D	N/D	N/D	N/D						
	1.7	N/D	N/D	N/D	N/D	N/D	N/D						
	1.9	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #9 W Don River @ Hwy 7

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.3	N/D	N/D	N/D	N/D	N/D	8						
	2.5	N/D	N/D	N/D	N/D	N/D	N/D						
	2.0	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #10 W Don R @ York Mills Rd

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	3.1	N/D	N/D	N/D	N/D	N/D	N/D						
	3.5	N/D	N/D	N/D	N/D	N/D	N/D						
	3.0	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #11 E Don R @ Bayview Ave

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.4	N/D	N/D	N/D	N/D	N/D	N/D						
	1.6	N/D	N/D	N/D	N/D	N/D	N/D						
	1.7	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #12 W Don R @ mouth

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	3.0	N/D	N/D	N/D	N/D	N/D	N/D						
	3.6	N/D	N/D	N/D	N/D	N/D	N/D						
	2.8	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #13 Don River @ Pottery Rd

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	3.6	N/D	N/D	N/D	N/D	N/D	N/D						
	5.4	N/D	N/D	N/D	N/D	N/D	2						
	1.3	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #14 Don River @ mouth

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	5.0	N/D	N/D	N/D	N/D	N/D	N/D						
	2.5	N/D	N/D	N/D	N/D	N/D	N/D						
	4.1	N/D	1	N/D	N/D	N/D	N/D						

STATION #15 Humber River @ Lakeshore

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.4	N/D	N/D	N/D	N/D	N/D	N/D						
	0.8	N/D	N/D	N/D	N/D	N/D	N/D						
	1.1	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #16 Humber River @ Bloor St

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.5	N/D	1	N/D	N/D	N/D	N/D						
	1.3	N/D	N/D	N/D	N/D	N/D	N/D						
	1.4	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #17 Black Creek @ Scarlett Rd

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.4	N/D	N/D	N/D	N/D	N/D	N/D						
	2.9	N/D	N/D	N/D	N/D	N/D	N/D						
	2.6	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #18 Black Creek @ Eglinton Ave

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.0	N/D	N/D	N/D	N/D	N/D	N/D						
	1.1	N/D	N/D	N/D	N/D	N/D	N/D						
	1.1	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #19 Black Creek @ Lawrence Ave

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.7	N/D	N/D	N/D	N/D	N/D	10						
	1.8	N/D	N/D	N/D	N/D	N/D	N/D						
	1.9	N/D	N/D	N/D	N/D	N/D	2						

STATION #20 Black Creek @ Sheppard Ave

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.9	N/D	N/D	N/D	N/D	N/D	N/D						
	2.2	N/D	N/D	N/D	N/D	N/D	N/D						
	2.9	N/D	1	N/D	N/D	N/D	N/D						

STATION #21 Humber River @ Scarlett Rd

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.2	N/D	N/D	N/D	N/D	N/D	N/D						
	1.2	N/D	N/D	N/D	N/D	N/D	N/D						
	1.5	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #22 Humber River @ Lawrence Ave

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.6	N/D	N/D	N/D	N/D	N/D	N/D						
	1.8	N/D	N/D	N/D	N/D	N/D	2						
	1.6	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #23 W Humber River @ Humber R

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.1	N/D	N/D	N/D	N/D	N/D	N/D						
	3.1	N/D	N/D	N/D	N/D	N/D	N/D						
	2.4	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #24 W Humber River @ Hwy 27

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.4	N/D	N/D	N/D	N/D	N/D	N/D						
	2.5	N/D	N/D	N/D	N/D	N/D	N/D						
	1.9	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #26 Humber River @ Steeles Ave

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.8	N/D	N/D	N/D	N/D	N/D	N/D						
	0.8	N/D	N/D	N/D	N/D	N/D	N/D						
	0.8	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #27 Mimico Creek @ mouth

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.9	N/D	N/D	N/D	N/D	N/D	N/D						
	1.7	N/D	N/D	N/D	N/D	N/D	N/D						
	1.5	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #28 Mimico Creek @ Bloor St

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.8	N/D	N/D	N/D	N/D	N/D	N/D						
	1.5	N/D	N/D	N/D	N/D	N/D	N/D						
	2.1	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #29 Mimico Creek @ Eglinton Ave

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.9	N/D	N/D	N/D	N/D	N/D	N/D						
	3.1	N/D	N/D	N/D	N/D	N/D	N/D						
	1.7	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #30 Mimico Creek @ Dixon Rd

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.3	N/D	N/D	N/D	N/D	N/D	N/D						
	2.1	N/D	N/D	N/D	N/D	N/D	N/D						
	1.7	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #31 Control 1 - Balsam Lake

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	2.1	N/D	N/D	N/D	N/D	N/D	N/D						
	2.0	N/D	N/D	N/D	N/D	N/D	N/D						
	1.9	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #32 Control 2 - Balsam Lake

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	1.9	N/D	N/D	N/D	N/D	N/D	N/D						
	1.6	N/D	N/D	N/D	N/D	N/D	N/D						
	2.1	N/D	N/D	N/D	N/D	N/D	N/D						

STATION #33 Control 3 - Balsam Lake

# Date and Time	LIPID %	10 ALDR ng/g	11 BHCA ng/g	12 BHCB ng/g	13 BHCG ng/g	14 CHLA ng/g	15 CHLG ng/g	16 DIEL ng/g	17 DMDT ng/g	18 END1 ng/g	19 END2 ng/g	20 ENDR ng/g	21 ENDS ng/g
	0.9	N/D	N/D	N/D	N/D	N/D	N/D						
	1.7	N/D	N/D	N/D	N/D	N/D	N/D						
	1.9	N/D	N/D	N/D	N/D	N/D	N/D						

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

CLAM BIOACCUMULATION STUDY - FALL, 1982

Pesticides and Organic Parameters

STATION #2 Taylor Creek @ Don River

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	2.5		N/D	N/D		N/D	33	N/D	N/D	N/D			
	3.7		N/D	N/D		N/D	N/D	12	5	N/D			
	1.8		N/D	N/D		N/D	N/D	N/D	1	N/D			

STATION #3 Don River @ Cummer Ave

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	1.4		N/D	N/D		N/D	N/D	N/D	1	N/D			
	2.2		1	N/D		N/D	35	N/D	N/D	N/D			
	1.9		1	N/D		N/D	26	N/D	4	N/D			

STATION #4 Don R @ John St, Thornhill

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	2.2		N/D	N/D		N/D	N/D	N/D	1	N/D			
	2.3		N/D	N/D		N/D	N/D	N/D	2	N/D			
	2.6		N/D	N/D		N/D	N/D	N/D	2	N/D			

STATION #5 Don R @ York Mills Rd

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	1.8		1	N/D		N/D	N/D	N/D	1	N/D			
	2.2		N/D	N/D		N/D	29	N/D	N/D	N/D			
	1.9		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

STATION #1 Don R @ Lawrence Ave

		22	23	24	25	26	27	28	29	30	31	32	33
	LIPID	HEPE	HEPT	MIRX	OCHL	OPDT	PCBT	PPDD	PPDE	PPDT	245T	24D	24DB
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
	3.2		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	5.3		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	2.4		N/D	N/D		N/D	N/D	N/D	1	N/D			

STATION #7 Don R above Taylor Creek

		22	23	24	25	26	27	28	29	30	31	32	33
	LIPID	HEPE	HEPT	MIRX	OCHL	OPDT	PCBT	PPDD	PPDE	PPDT	245T	24D	24DB
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
	3.1		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	3.2		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	3.5		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

STATION #8 W Don R @ Finch Res

		22	23	24	25	26	27	28	29	30	31	32	33
	LIPID	HEPE	HEPT	MIRX	OCHL	OPDT	PCBT	PPDD	PPDE	PPDT	245T	24D	24DB
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
	2.0		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	1.7		N/D	N/D		N/D	N/D	N/D	1	N/D			
	1.9		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

STATION #9 W Don River @ Hwy 7

		22	23	24	25	26	27	28	29	30	31	32	33
	LIPID	HEPE	HEPT	MIRX	OCHL	OPDT	PCBT	PPDD	PPDE	PPDT	245T	24D	24DB
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
	2.3		N/D	N/D		N/D	N/D	N/D	6	5			
	2.5		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	2.0		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

STATION #10 W Don R @ York Mills Rd

		22	23	24	25	26	27	28	29	30	31	32	33
	LIPID	HEPE	HEPT	MIRX	OCHL	OPDT	PCBT	PPDD	PPDE	PPDT	245T	24D	24DB
# Date and Time	%	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g	ng/g
	3.1		N/D	N/D		N/D	N/D	N/D	1	N/D			
	3.5		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	3.0		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

STATION #11 W Don R @ Bayview Ave

#	Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DP ng/g
		1.4		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
		1.6		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
		1.7		N/D	N/D		N/D	N/D	N/D	1	N/D			

STATION #12 W Don R @ mouth

#	Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DP ng/g
		3.0		N/D	N/D		N/D	N/D	N/D	8	N/D			
		3.6		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
		2.8		N/D	N/D		N/D	N/D	N/D	1	N/D			

STATION #13 Don River @ Pottery Rd

#	Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DP ng/g
		3.6		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
		5.4		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
		1.3		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

STATION #14 Don River @ mouth

#	Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DP ng/g
		5.0		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
		2.5		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
		4.1		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

STATION #15 Humber River @ Lakeshore

#	Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DP ng/g
		1.4		N/D	N/D		N/D	N/D	N/D	1	N/D			
		0.8		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
		1.1		N/D	N/D		N/D	N/D	N/D	1	N/D			

STATION #16 Humber River @ Bloor St

#	Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
		1.5		N/D	N/D		N/D	23	N/D	1	N/D			
		1.3		N/D	N/D		N/D	21	N/D	1	N/D			
		1.4		N/D	N/D		N/D	24	N/D	1	N/D			

STATION #17 Black Creek @ Scarlett Rd

#	Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
		2.4		N/D	N/D		N/D	50	N/D	N/D	N/D			
		2.9		N/D	N/D		N/D	50	N/D	N/D	N/D			
		2.6		N/D	N/D		N/D	50	N/D	N/D	N/D			

STATION #18 Black Creek @ Eglinton Ave

#	Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
		1.0		N/D	N/D		N/D	29	N/D	1	N/D			
		1.1		N/D	N/D		N/D	33	5	3	N/D			
		1.1		N/D	N/D		N/D	32	N/D	1	N/D			

STATION #19 Black Creek @ Lawrence Ave

#	Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
		1.7		N/D	N/D		N/D	N/D	N/D	1	N/D			
		1.8		N/D	N/D		N/D	N/D	7	8	N/D			
		1.9		N/D	N/D		N/D	N/D	6	4	N/D			

STATION #20 Black Creek @ Sheppard Ave

#	Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
		2.9		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
		2.2		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
		2.9		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

STATION #21 Humber River @ Scarlett Rd

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	1.2		N/D	N/D		N/D	N/D	N/D	1	N/D			
	1.2		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	1.5		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

STATION #22 Humber River @ Lawrence Ave

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	1.6		N/D	N/D		5	N/D	N/D	2	N/D			
	1.8		N/D	N/D		N/D	20	N/D	1	N/D			
	1.4		N/D	N/D		N/D	N/D	N/D	1	N/D			

STATION #23 W Humber River @ Humber R

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	2.1		N/D	N/D		N/D	21	N/D	1	N/D			
	3.1		N/D	N/D		N/D	23	N/D	1	N/D			
	2.4		N/D	N/D		N/D	N/D	N/D	1	N/D			

STATION #24 W Humber River @ Hwy 27

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	2.4		N/D	N/D		N/D	30	N/D	N/D	N/D			
	2.5		N/D	N/D		N/D	39	N/D	1	N/D			
	1.9		N/D	N/D		N/D	24	N/D	N/D	N/D			

STATION #26 Humber River @ Steeles Ave

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	1.8		N/D	N/D		N/D	N/D	N/D	1	N/D			
	0.9		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	0.8		N/D	N/D		N/D	N/D	N/D	1	N/D			

STATION #27 Mimico Creek @ mouth

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	1.9		N/D	N/D		N/D	N/D	N/D	1	N/D			
	1.7		N/D	N/D		N/D	N/D	N/D	1	N/D			
	1.8		N/D	N/D		N/D	N/D	N/D	1	N/D			

STATION #28 Mimico Creek @ Bloor St

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	1.8		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	1.5		N/D	N/D		N/D	N/D	N/D	1	N/D			
	2.1		N/D	N/D		N/D	24	5	4	N/D			

STATION #29 Mimico Creek @ Eglinton Ave

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	2.9		N/D	N/D		N/D	28	N/D	1	N/D			
	3.1		N/D	N/D		N/D	21	N/D	N/D	N/D			
	1.7		N/D	N/D		N/D	29	N/D	1	N/D			

STATION #30 Mimico Creek @ Dixon Rd

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	2.3		N/D	N/D		N/D	21	N/D	N/D	N/D			
	2.1		N/D	N/D		N/D	N/D	N/D	1	N/D			
	1.7		N/D	N/D		N/D	20	N/D	N/D	N/D			

STATION #31 Control 1 - Balsam Lake

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	2.1		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	2.0		N/D	N/D		N/D	N/D	N/D	1	N/D			
	1.9		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

STATION #32 Control 2 - Balsam Lake

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	1.9		N/D	N/D		N/D	N/D	N/D	1	N/D			
	1.6		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	2.1		N/D	N/D		N/D	N/D	N/D	1	N/D			

STATION #33 Control 3 - Balsam Lake

# Date and Time	LIPID %	22 HEPE ng/g	23 HEPT ng/g	24 MIRX ng/g	25 OCHL ng/g	26 OPDT ng/g	27 PCBT ng/g	28 PPDD ng/g	29 PPDE ng/g	30 PPDT ng/g	31 245T ng/g	32 24D ng/g	33 24DB ng/g
	0.9		N/D	N/D		N/D	N/D	N/D	N/D	N/D			
	1.7		N/D	N/D		N/D	N/D	N/D	1	N/D			
	1.8		N/D	N/D		N/D	N/D	N/D	N/D	N/D			

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY

CLAM BIOACCUMULATION STUDY - FALL, 1982

Pesticides and Organic Parameters

STATION #2 Taylor Creek @ Don River

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	2.5					N/D							N/D
	3.7					N/D							N/D
	1.8					N/D							N/D

STATION #3 Don River @ Cummer Ave

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	1.4					N/D							N/D
	2.2					N/D							N/D
	1.9					N/D							N/D

STATION #4 Don R @ John St, Thornhill

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	2.2					N/D							N/D
	2.3					N/D							N/D
	2.6					2							N/D

STATION #5 Don R @ York Mills Rd

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	1.8					N/D							N/D
	2.2					N/D							N/D
	1.9					N/D							N/D

STATION #6 Don R @ Lawrence Ave

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	3.2					N/D							N/D
	5.3					N/D							N/D
	2.4					N/D							N/D

STATION #7 Don R above Taylor Creek

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	3.1					N/D							N/D
	3.2					N/D							N/D
	3.5					N/D							N/D

STATION #8 W Don R @ Finch Res

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	2.0					N/D							N/D
	1.7					N/D							N/D
	1.9					N/D							N/D

STATION #9 W Don River @ Hwy 7

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	2.3					N/D							N/D
	2.5					N/D							N/D
	2.0					N/D							N/D

STATION #10 W Don R @ York Mills Rd

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	3.1					N/D							N/D
	3.5					N/D							N/D
	3.0					N/D							N/D

STATION #11 W Don R @ Bayview Ave

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 DCT ng/g
	1.4					N/D							N/D
	1.6					N/D							N/D
	1.7					N/D							N/D

STATION #12 W Don R @ mouth

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 DCT ng/g
	3.0					N/D							N/D
	3.6					N/D							N/D
	2.8					N/D							N/D

STATION #13 Don River @ Pottery Rd

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 DCT ng/g
	3.6					N/D							N/D
	5.4					N/D							N/D
	1.3					N/D							N/D

STATION #14 Don River @ mouth

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 DCT ng/g
	5.0					N/D							N/D
	2.5					N/D							N/D
	4.1					N/D							N/D

STATION #15 Humber River @ Lakeshore

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 DCT ng/g
	1.4					N/D							N/D
	0.8					N/D							N/D
	1.1					N/D							N/D

STATION #16 Humber River @ Bloor St

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	1.5					N/D							N/D
	1.3					N/D							N/D
	1.4					N/D							N/D

STATION #17 Black Creek @ Scarlett Rd

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	2.4					N/D							N/D
	2.9					N/D							N/D
	2.6					N/D							N/D

STATION #18 Black Creek @ Eglinton Ave

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	1.0					N/D							N/D
	1.1					N/D							N/D
	1.1					N/D							N/D

STATION #19 Black Creek @ Lawrence Ave

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	1.7					N/D							N/D
	1.8					N/D							N/D
	1.9					N/D							N/D

STATION #20 Black Creek @ Sheppard Ave

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	2.9					N/D							N/D
	2.2					N/D							N/D
	2.9					N/D							N/D

STATION #21 Humber River @ Scarlett Rd

#	Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
		1.2					N/D							N/D
		1.2					N/D							N/D
		1.5					N/D							N/D

STATION #22 Humber River @ Lawrence Ave

#	Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
		1.6					N/D							N/D
		1.8					N/D							N/D
		1.6					N/D							N/D

STATION #23 W Humber River @ Humber R

#	Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
		2.1					N/D							N/D
		3.1					N/D							N/D
		2.4					N/D							N/D

STATION #24 W Humber River @ Hwy 27

#	Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
		2.4					N/D							N/D
		2.5					N/D							N/D
		1.9					N/D							N/D

STATION #26 Humber River @ Steeles Ave

#	Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
		1.8					N/D							N/D
		0.8					N/D							N/D
		0.8					N/D							N/D

STATION #27 Mimico Creek @ mouth

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	1.9					N/D							N/D
	1.7					N/D							N/D
	1.8					N/D							N/D

STATION #28 Mimico Creek @ Bloor St

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	1.8					N/D							N/D
	1.5					N/D							N/D
	2.1					N/D							N/D

STATION #29 Mimico Creek @ Eglinton Ave

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	2.9					N/D							N/D
	3.1					N/D							N/D
	1.7					N/D							N/D

STATION #30 Mimico Creek @ Dixon Rd

# Date and Time	LIPID %	34 24DP ng/g	35 DICA ng/g	36 PICL ng/g	37 SILV ng/g	38 HCB ng/g	39 234 ng/g	40 2345 ng/g	41 2356 ng/g	42 245 ng/g	43 246 ng/g	44 PCPH ng/g	56 OCT ng/g
	2.3					N/D							N/D
	2.1					N/D							N/D
	1.7					N/D							N/D

ANNEX 4

SEDIMENT QUALITY DATA

ANNEX 4

SEDIMENT QUALITY DATA

Annex 4 contains results of a special scan for metals in sediment samples from four sites.

TABLE A4.1

SPECIAL METAL SCANS FROM SELECTED SITES

Element	MOE Laboratory Sample Numbers* SE42-0002	SE42-0004	SE42-0005	SE42-0013	Guideline** (ppm)
Si	>7.5%	>7.5%	>7.5%	>7.5%	
Al	5-10%	5-10%	2.3-5%	5-10%	
Fe	2.3-5%	7.5-15%	2.3-5%	5-10%	10 000
Ca	>7.5%	>7.5%	>7.5%	>7.5%	
Mg	1-3%	2-4%	2-4%	2-4%	
Ti	1000-3000	1000-3000	1000-3000	1000-3000	
Mn	15-45	15-45	15-45	15-45	
Ba	40-60	40-60	40-60	40-60	
Be	<1	<1	<1	<1	
B	10-30	10-30	10-30	10-30	
Ge	<6	<6	<6	<6	
Tl	<6	<6	<6	<6	
Pb	30-60	45-150	10-20	45-150	50
Sn	<6	<6	<6	<6	
Ga					
Bi	<2	<2	<2	<2	
V	Trace <6	6-12	Trace <6	Trace <6	
Mo	<10	<10	<10	<10	
Cu	Trace <15	15-45	Trace <15	15-45	25
Ag	Trace <2	Trace <2	Trace <2	Trace <2	0.5
Ni	10-20	10-20	10-20	10-20	25
In					
Zr	10-20	10-20	6-10	6-10	
Cr	10-20	10-20	6-12	10-20	25
As	<60	<60	<60	<60	8.0
Cd	<6	<6	<6	<6	1.0
Sr	40-80	45-150	45-150	45-150	
Co	Trace <6	Trace <6	Trace <6	Trace <6	50
Sb	<15	<15	<15	<15	
Te	<150	<150	<150	<150	

Qualitative DC arc.
All results in ppm unless otherwise indicated.
Blank space means the analysis was not done.

* Locations
SE42-0002 - Site 2 - Near Don River Mouth
SE42-0004 - Site 4 - Mimico Creek, near Mouth
SE42-0005 - Site 5 - Black Creek at Scarlett Road
SE42-0013 - Site 14 - Humber River at Lakeshore Blvd

**Persaud, D., and W. D. Wilkins, 1976. Evaluating Construction Activities Impacting on Water Resources. Ministry of the Environment, Toronto, Ontario.